ESTABLISHED IN 1872

PAPER TRADE JOURNAL

Vol. LXXIX No. 4 NEW YORK AND CHICAGO Thursday, July 24, 1924

HUBBS & CO. TAKE CASE TO APPELLATE DIVISION

Appeal Is Filed to Judgment Rendered in Supreme Court of New York County in Favor of C. B. Richard & Co.—Appellant Will Fight Case Further to Protect Trade from a Principle That Might Protect a Buyer in Breaking a Contract at Will to Take Advantage of a Changing Market—Case Based on Shipments of Wrapping Paper to South America in 1920.

Charles F. Hubbs & Co. of 389 Lafayette street have appealed to the Appellate Division from a recent judgment entered in the Supreme Court, New York County, in favor of C. B. Richard & Co., Export Financiers, in the amount of $4,222.96. The action was tried in June before Justice Donahue and a jury. Hubbs & Co. Inc., take the appeal not on account of the amount of money involved but because they consider it their duty to fight to the last ditch a principle that might make it possible for a buyer to break a contract at will to take advantage of a changing market.

Basis of the Suit

In May, 1920, C. B. Richard & Co. purchased of Charles F. Hubbs & Co. a quantity of wrapping news f. o. b. packers for a price of approximately $4,000. C. B. Richard & Co. received the paper from the packers and about thirty days from date of invoice paid for the paper, shipping it to South America.

About August of 1920, C. B. Richard & Co. purchased another lot of wrapping news for a price of approximately $6,000 upon the same terms and delivery was made in the same manner viz., f. o. b. packers. Upon receipt of invoice, C. B. Richard & Co. returned the same saying that they wished to cancel the order on account of unsettled conditions in South America.

Charles F. Hubbs & Co. refused to accept cancellation on the ground that the paper had been cut, packed and delivered, and unless paid for would be a complete loss and brought suit for the purchase price of the last lot of wrapping news. C. B. Richard then brought suit claiming after six months that the first lot of paper was rejected by their customers in South American because not of proper quality or cut according to instructions.

Raised Technical Point

In the action brought by Charles F. Hubbs & Co., the Richard Company raised the technical point that the correspondence passing between the parties on the second order did not make out a contract. This question is now awaiting the determination of the Appellate Division on the First Department. However the correspondence, order and acceptance are the same on both lots.

In the Richard action the plaintiff served an amended complaint and the Hubb Company put in a counter claim arising from the failure to pay for the second lot of paper. When the Richard action, which was brought subsequent to the Hubbs action, came to trial the Hubbs Company were advised by counsel that the ruling of the trial judge excluding certain testimony vital to its defense, constituted reversible error and accordingly the Hubbs Company withdraw from the consideration of the jury its counter claim and now relies on the reversal by the Appellate Division of the judgment in favor of C. B. Richard & Co., upon the appeal which their attorneys have taken.

Expect Reversal on Appeal

They are advised by counsel that they may expect a reversal of the judgment against them and that their claim arising upon the second lot of wrapping news is still pending and is not affected by the judgment.

Paper Specifications Committee Named

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 23, 1923.—The Joint Congressional Committee on printing has announced the Committee on Paper Specifications which will draw up the paper specifications for the Government Printing Office for the annual supply beginning March 1, 1925.

The Committee is composed of the following: F. P. Veitch, Paper Laboratory, Bureau of Chemistry: B. W. Scribner, Paper Laboratory, Bureau of Standards; E. E. Emerson, Purchasing Agent, Edward O. Reed, Chief of Tests and William H. Kerwin, store keeper, all representing the Government Printing Office; Frederick F. Weston, Treasury Department; Ansel A. Wold, clerk to the Joint Committee on Printing and Walter W. Scott, Inspector of the Committee.

While no announcement has been made it is understood that the Committee intends to invite bidders and other paper manufacturers to attend a preliminary conference at which they will be invited to place before the committee any suggestions which they have to make regarding the new specifications. The Government Officials claim that this is being done in order to obtain closer co-operation between the paper manufacturers and the Government. A similar conference was held last year as the result of which it is contended that a better understanding was obtained between the Government officials and the paper manufacturers.

Men at Filer Fibre Plant Strike

[FROM OUR REGULAR CORRESPONDENT.]

APPELTON, Wis., July 22, 1924.—Because the management of the Filer Fibre Company, at Manistee, Mich., refused to recognize a newly organized union, employees of the company went on strike last Wednesday and still are out. The Filer Company has its share of troubles lately. Recently it has a controversy with the Isaac Walton league over floating pulpwood bolts down the Little Manistee river and that was followed by instructions from the Michigan conservation commissioner to cease dumping waste acids into Manistee lake.

WAXED PAPER ASSOCIATION HOLDS IMPORTANT MEETING

Representatives of Many Leading Manufacturers Attend Session — Articles of Association Adopted — Research Department to be Developed and Committee is Empowered to Employ Competent Engineer — Association Decides to Sell Waxed Paper With Exception of Lunch Rolls and Light Weight Tissues by the Pound — Senator Ellwood M. Rabenold Addresses Gathering.

A very enthusiastic meeting of the American Waxed Paper Association was held Tuesday at the Hotel McAlpin at which much important business was transacted.

The association formally adopted the articles of association which have been under discussion for several months.

To Employ Engineer

Jacob Kindleberger, president of the Kalamazoo Vegetable Parchment Company and chairman of the committee on research proposed that the association develop a research department to investigate the possibilities of new uses of waxed paper, reports to be given to all members simultaneously. The proposal was accepted and the committee was empowered to employ a competent engineer.

The secretary reported on the development of the Credit Bureau Service and various members spoke on the value this service was proving to them. The meeting discussed the association's trade customs in detail and these were accepted in full.

As almost the entire tonnage of waxed paper manufactured in the United States is used for the protection and preservation of food, the Association recognizes that it has a prime duty to the public so to regulate the methods and materials employed in the manufacture of its product that it shall be sanitary and suited for food uses.

Objects of Association

The objects of the association as defined in the newly adopted articles are as follows:

(a) Promote mutual confidence among and between the manufacturers and consumers of waxed paper and waxed paper products.

(b) Develop standards of waxed paper, waxed paper products and raw materials used in their manufacture that will be recognized by the industry, the trade and the public.

(c) Develop trade customs covering the manufacture and sale of waxed paper and waxed paper products that will be fair and reasonable for both the manufacturer and the buyer.

(d) Develop credit information.

(e) Establish a research department to further the development and use of waxed paper and waxed paper products.

(f) Develop arbitration measures as a means of settling disputes in the industry.

The association unanimously adopted standards for the character of wax, grades of papers used for the various waxed paper products and weights of finished waxed papers.

A Progressive Step

One of the progressive steps taken at the meeting was the decision to sell all waxed paper except lunch rolls and light weight tissues under 18 lbs. weight by the pound.

The association's plan of activities as outlined is as follows:

1. Development of an effective Credit Bureau Service.
2. Establishment of Trade Customs that will be fair and reasonable for both the manufacturer and the consumer of waxed paper and waxed paper products.
3. Development of standards of waxed paper, waxed paper products and raw materials used in their manufacture that will be recognized by the industry, the trade and the public.
4. Establishment of a Research Department to further the development and use of waxed paper and waxed paper products.
5. Providing the industry with a means of settling disputes by arbitration.
6. Advertising the association to the consumers. The association will distribute through its members brief bulletins on various grades of waxed paper, informing its customers as to the proper qualities to be used for the special merchandising or purposes developed by the Research Department of the association.

The association will work towards the protection, promotion and perpetuation of the waxed paper industry of the United States.

It will cultivate the confidence of the consumer of waxed paper and endeavor to make its membership prized and of value to all reputable manufacturers of waxed paper and waxed paper goods.

Address by Senator Rabenold

During the luncheon Senator Ellwood M. Rabenold of New York delivered an inspiring address on "Modern Business and the Advantages of Co-operative Competition."

W. L. Carter, president of the association and chairman of the publicity committee, reported an outline of the publicity work of the association. This was as follows:

1.—General discussion of association's program of activities.

2.—General discussion of association's trade customs.

3.—Special bulletins covering the work of the association in standards, sanitary conditions, purity of product, research, new uses of waxed papers; these to be distributed at the association offices to all users of waxed papers in an effort to protect the consumers of foodstuffs wrapped in waxed paper and to raise the standard of waxed paper products.

W. B. Lawrence of Chicago delivered an excellent illustrated address on "Practicability, Value and Use of a Standard Scale of Comparative Values for the Waxed Paper Printing Industry."

To Develop Standard Scale

Following this address a report was made by M. Berkowitz, Sr., chairman of the association's printing committee which was unanimously and enthusiastically accepted, the committee being authorized to proceed in the development of such a standard scale as Mr. Lawrence had advocated in his address.

On the invitation of Mr. Kindelberger it was voted to hold the next meeting of the association at Kalamazoo, Mich., on Tuesday, October 21.

The meeting was attended by representatives of the following concerns: Newark Paraffin and Parchment Paper Company, Newark, N. J.; Package Paper and Supply Corporation, Springfield, Mass.; Hamersley Manufacturing Company, New York; Bennington Wax Paper Company, Bennington, Vt.; Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.; Appleford Counter Check Book Company; National Waterproofing Company, Philadelphia; New Jersey Wax Paper Company; Sherwood Paper Company, Somerville, Mass.; Waxide Paper Company, Kansas City, Mo.; Nashua Gummed and Coated Paper Company, Nashua, N. H.; Wolverine Paper Company, Otsego, Mich.; Ohio Wax Paper Company, Columbus, Ohio; Central Waxed Paper Company, Chicago; Cleveland Wax Paper Company, Cleveland; Menasha Printing and Carton Company, Menasha, Wis.; Union Waxed and Parchment Paper Company, Hamburg, N. J.

Box Board Men to Meet in New York

CHICAGO, July 21, 1924.—The Box Board Association, whose headquarters are at 400 N. Michigan avenue, will hold its next regular meeting at 11 o'clock Wednesday morning, August 13, at the Hotel Commodore, New York.

MUCH INTEREST IN CANADA OVER RIORDON PROPERTY SALE

Bondholders Expected to Put in Protecting Bid at Sale Advertised for September 8—Bear River Pulp Mills Spending $300,000 on Clarke Bros. Mill—Major J. A. Duchastel de Montrouge Appointed General Manager of Quebec Forest Industries' Association at a Salary of $15,000 a Year—Bay Sulphite Co. Approves Transfer of Property to Port Alfred Pulp and Paper Corp.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., July 21, 1924.—The offering of all the Riordon properties for sale has been advertised to take place on September 8 and is taken to mean that the first mortgage bondholders will secure possession of the properties at that date and be in a position to negotiate for the sale of the mills and limits to any body that is in the market. It is probable that the bondholders will put in a bid that will cover their own interests in the property, and that, automatically, claims of creditors and shareholders will be wiped out.

Bear River Pulp Mills Improvements

The Bear River Pulp Mills, Limited, are spending in the neighborhood of $300,000 in the rehabilitation of Clarke Bros.' mill at Bear River, N. S. Several new machines are being installed which will not only increase production, but will put the mill on a more efficient basis and reduce overhead. A pipe line for the supplying of water is already practically completed. The line is about five and one-half miles in length and runs from the East branch of the Bear River to the plant. It is expected that alterations will be completed and the mill in operation by October 1.

Manager for Forest Industries

Major J. A. Duchastel de Montrouge, general manager and city engineer of the City of Outremont, Que., has been appointed general manager of the newly-formed Quebec Forest Industries' Association. He will receive a salary of $15,000 a year in place of the $8,400 received from the city of Outremont. He will reside in the city of Quebec. Major Duchastel was born in New York, the son of Leon Duchatsel de Montrouge, for many years French consul in Montreal. As a boy he traveled extensively with his father in Europe and the United States. He was educated in Montreal, at Mont St. Louis and the Ecole Polytechnique, St. Denis street, where he graduated in his profession as civil engineer. Previous to entering the service of the city of Outremont, Major Duchastel held posts with the Canadian Pacific Railway and the Dominion Bridge Company.

The Quebec Forest Industries' Association is the result of a meeting of the limit holders held in Montreal in January last, when it was decided to reorganize on a new basis the former Province of Quebec Limit Holders' Association. The Association is expected to be the authorized body of the larger group of limit holders to deal with the Federal and Provincial Governments and also to be the intermediary with other interests in discussing matters connected with the pulp industry. It is expected also to bring about co-operation between the various groups of pulp interests, and to have an influence in stabilizing pulp prices.

Bay Sulphite Company Plans

The bondholders of the Bay Sulphite Company have expressed unanimous approval of the arrangemens that have been made for the transfer of the property to the Port Alfred Pulp and Paper Corporation. It is understood that the terms of the financing will assure them of an exchange of their bonds for an equal amount of bonds of the new company and these latter will bear the same coupon rate of 6½ per cent, and have the same maturity, April 1, 1943. In addition operations of the company will be benefited by substantial working capital provided by securities that will rank after the first mortgage bonds. Thus the Bay Sulphite Company bondholders will be amply protected. In spite of unfavorable conditions in the pulp market and the special difficulties Bay Sulphite Company has had to face during the past year the mills of the company at Port Alfred have been kept operating continuously, and it is understood that the production at the present time is the highest in the history of the company. This sulphite pulp, at the rate of about 40,000 tons a year, is being all exported to the United States. Moreover, the operations are being carried out more efficiently than ever before and even at the existing low market pric for pulp the company is earning not only bond interest but depreciation and sinking fund with a margin to spare.

The Dean of Lumber Kings

There are a good many lumber kings on this continent, but the dean of them all is John R. Booth, the owner of the Booth mills at Ottawa and of vast timber limits in the watershed of the Ottawa River. Mr. Booth is now 98 years of age, and is as active as ever in directing the huge industry he has built up. He has built up a fortune of many millions, yet lumbering is still his chief recreation.

Moves Sales Department

The Brompton Pulp and Paper Company, Limited, have transferred the headquarters of their Sales Department from East Angus to Montreal. R. H. Bryan, Sales Manager of the Brompton Company, now having his office in the Drummond Building, No. 511 St. Catherine street, West, Telephone Uptown 6337.

Riverside Paper Co. Begins Operations

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., July 22, 1924.—Production of paper on a commercial scale was started last Monday by the Riverside Fibre and Paper Company at its new mill here. The plant was completed several weeks ago but was not actually placed in operation until all adjustments had been completed. Sulphite bond and ledger papers are being made in the new mill.

Dismantling of the old plant has been started and part of the machinery is being moved to the new building. The old building has been sold and is to be torn down.

The sulphite mill was closed down for a week to permit repairs and installation of new stokers of increased capacity. Other changes also are being made about the mill to increase the efficiency of its co-operation with the new plant. The two mills are practically one building with the tearing out of a wall from the sulphite plant.

The Riverside mill is operating six days a week, 24 hours a day, closing down on Sundays. Other mills in the Fox river valley are running "light," either by closing down some of their machines or by shutting down the entire plant for a day or two at a time.

To Co-operate in Simplification Program

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 23, 1924.—Word has been received by the Simplified Practice Division of the Department of Commerce that various paper box associations are desirous of co-operating in a simplification program.

In this connection William A. Gately of the Division is sending a letter to various associations asking them to appoint a committee of three members from each association to attend a conference at Niagara Falls or some other suitable place about the middle of August. The meeting is being called at this time because as Mr. Gately states "Large undertakings are apt to drag at first and it will be of material assistance to have the board cleared for action by the fall."

The letters suggesting the appointment of the committee has been sent to the secretaries of the National Paper Box Manufacturers' Association, the National Container Association, the Folding Box Manufacturers' National Association and the Box Board Association.

CHANGE IN COARSE PAPERS FEATURES CHICAGO MARKET

Demand Has Fallen Off and Prices Drop Below Level of a Few Weeks Back—Wall Paper Prices Quoted 15 Per Cent Below Last Year's Figures—Paper Stock Men Working on Curtailed Schedule—Writing Paper Manufacturers' Association Holds Quarterly Meeting—Elaborate Advertising Campaign Launched for Backus Grey—Activities and Personals of Chicago Paper Trade.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, Ill., July 21, 1924.—There has been hardly any change in the paper market in the Chicago territory since last week. In the fine paper divisions no change has been noticed, while the only difference in the situation occurred in the coarse branches where less activity is reported.

Paper men here are anxious for the political situation to be cleared up. They believe that with the right decision next November business will proceed on a sound basis with enough business for all. Some express grave concern over the possible undesirable turn of affairs in that direction.

In bonds and coated papers, merchants, jobbers and manufacturers are experiencing the usual light summer demand. However, there is some business being placed but it is said to be for rush shipment. This is an indication that consumers are not anticipating their requirements nor carrying much of a stock on hand with which to fill their needs. The printers are finding that some of their customers are now and then being forced to proceed with some jobs they intended holding off. Then they must get the paper for it in a hurry with the result that the mills are kept in a sweat on this special stuff which does not indicate what it would seem to—heavier buying.

There has been a slight softening in the course paper market. Prices are a trifle off from their level of a few weeks back. There is not such a wide difference in f. o. b. mill quotations as in retail prices. Due to the lessened demand the latter have gone down driven there by competition.

Wall Paper Down; Demand Lighter

Just now the fall wall paper business is getting well under way. Prices have already been quoted by various interests in this branch of the industry and they turn up about 15 per cent under last year's figures. A lighter demand is also reported in the Chicago market but it is expected to become healthier within the next thirty to ninety days. Mills are not leading up this year as they did last, so the report goes. It seems that they produced heavier than the demand and were stuck with quite a supply. This season they are advancing cautiously so as to move their entire output.

Slight Stiffening in Combination Board

One of the large paper interests in the Chicago territory stated that during the last two weeks there was apparent a tendency toward stiffening in the combination board market. But it did not get very far as present conditions prove. Chip and liners are still weak. Manufacturers tried to put a $2.50 per ton increase into effect about three weeks ago, just after the two weeks shut-down, but with no effect. It is believed that there will not be much activity in buying until the early fall.

Paper Stock Men on Curtailed Schedule

Inquiry among the paper stock dealers of the Chicago territory reveals curtailed operations. The scarcity of paper stocks continues getting more marked as the weeks pass. With the rigid application of paper stock specifications by consumers, it is becoming more difficult to acquire accumulations. Gatherers are not active, due no doubt to the fact that such a low price is being paid for what they pick up. One dealer stated that even if he were given the paper stock by gatherers he could hardly make a return on his investment at the present prevailing prices. Many packers are closing down two and three days each week in an effort to cut down overhead expenses and permit some accumulation at warehouses to warrant operating again on the following Monday morning.

Writing Paper Producers Meet

The regular quarterly meeting of the Writing Paper Manufacturers' Association was held on Thursday, **July 17**, at the Edgewater Beach Hotel, Chicago. A large number of the most prominent writing paper producers in the country were in attendance. The session convened in the new addition to this great aristocratic hotel on the far north side of the city.

The meeting concerned itself principally with present manufacturning problems. Considerable discussion centered around the scarcity of rags. It is presenting quite an acute situation, according to secretary-treasurer E. H. Naylor, of the association. Manufacturers ordinarily keep seven weeks' stocks of rags on hand but at present they are able to maintain only a week's supply. The association membership decided that some action must be taken to encourage people to save up rags instead of burning them or otherwise destroying them. The pulp market is also stiffening somewhat and these factors bid fair to have another effect on the market.

On Wednesday evening the writing paper manufacturers met with a committee from the Chicago Typothetæ to discuss the Hoover plan for standardizing paper grades and sizes. A resolution was drawn up by both organizations pledging their support of the Hoover standardization program to bring it to a speedy realization.

Officers of the Writing Paper Manufacturers' Association are: President, Philip Weston, of Byron Weston Company, Dalton, Mass.; vice-president, W. M. Crane, of Crane & Co., Dalton, Mass.; second vice-president, A. H. Nevius, Miami Paper Company, Dayton, Ohio, and secretary-treasurer, E. H. Naylor, New York City.

Advertising Campaign for Backus Grey

An advertising campaign including full-page newspaper space is being conducted in the Windy City for Backus Grey, called the "new sulphate paper," which is being manufactured by the Minnesota and Ontario Paper Company, at International Falls, Minn. The names of the two paper merchants in Chicago who handle this company's new product also appears at the bottom of the advertisement, namely, the Schwarz Paper Company, and the F. C. Traver Paper Company. The advertising is aimed at better wrapped packages. In each ad a large illustration pictures a bunch of packages strewn around either falling from a mail sack or some other conveyance, and many of the packages torn open because poorly wrapped. In the midst of this layout there are a number af packages properly wrapped with good paper that are intact and unharmed. The text matter of the ad deals with the advantages of well-wrapped packages. The campaign is making quite an impression upon the paper-buying public.

Activities of the Paper Trade

H. D. Thomas, president of the Parker, Thomas and Tucker Paper Company, Chicago, has just left for Saratoga, Wyo., where he will spend three weeks on a fishing trip.

Kenneth King, of the Chicago office of the DuPont DeNemours & Co., met with a serious automobile accident while visiting the plant of the Minnesota and Ontario Paper Company, at International Falls, Minn., recently. He is now in the Presbyterian Hospital, in Chicago, and is doing nicely. A speedy recovery is reported.

P. J. Monahan, a salesman for the Import Paper Company, is now traveling in the east with his wife on his vacation. He is expected to return in a few weeks. Mr. Monohan is one of the best paper salesmen in the Central West. He has a host of friends not only in Chicago but in may parts of the country.

MATHIESON System

Let the List Speak for Itself!

THE following prominent paper mills use and indorse the Mathieson System for preparing bleach liquors from Liquid Chlorine:

Hammermill Paper Company, Erie, Pa.
Hamersley Mfg. Company, Garfield, N. J.
Mead Fibre Company, Kingsport, Tenn.
Champion Fibre Company, Canton, N. C.
Provincial Paper Mills, Port Arthur, Ont.
Crystal Tissue Company, Middletown, Ohio
S. George Company, Wellsburg, W. Va.
Sweet Bros. Mfg. Co., Inc., Phoenix, N. Y.
Dill & Collins Company, Philadelphia, Pa.
The Smith Paper Company, Lee, Mass.
Port Huron Sulphite & Paper Company, Port Huron, Mich.
Consolidated Water Power & Paper Co., Appleton, Wis.
District of Columbia Paper Mfg. Co., Washington, D. C.
Nekoosa-Edwards Paper Company, Port Edwards, Wis.
Riordon Pulp Corp., Hawkesbury, Ont., Can.

Kalamazoo Vegetable Parchment Paper Company, Kalamazoo, Mich.; Paterson Parchment Paper Company, Passaic, N. J., and International Paper Company, Piercefield, N. Y., have installed the Mathieson System but have not yet placed it in operation. Numerous other mills are contemplating installing this System and have been furnished with plans to fit the individual requirements of each.

Could there be any more convincing evidence of the superiority of our System than the names in the above list?

The MATHIESON ALKALI WORKS Inc.
25 WEST 43rd STREET NEW YORK CITY
PHILADELPHIA PROVIDENCE CHICAGO CHARLOTTE

EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Bicarbonate of Soda
Liquid Chlorine-Caustic Soda
Sesquicarbonate of Soda
Bleaching Powder-Soda Ash

PAPER DEMAND IN TORONTO IS SLIGHTLY MORE ACTIVE

This Is Accounted for, However, By Purchases on the Part of Printers for Special Purposes—Demand for Pulpwood This Fall Not Expected to Be Large Owing to the Quietude and Rather Uncertain Outlook in the Paper Market—Canada Waxed Paper Co. Begins Manufacture of All Kinds of Waxed Paper Products in Toronto —Gummed Papers, Ltd., Completes New Factory.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, July 21, 1924.—Business in the paper line shows some tendency to pick up and orders have been placed a little more freely during the past week. Some printers, who have been slack for some time, are getting busier and the increase in trade is attributed to the large amount of printed matter which will be produced for distribution at the forthcoming Canadian National Exhibition which opens in Toronto during the latter part of next month and is attended annually by a million and a half visitors from all parts of the Dominion. Coated blotting, ledger and other lines are consequently in a little better demand. There has been some slight readjustments in the prices of the cheaper grades of shipping tags to meet foreign competition, and a reduction of half a cent has been made in bogus bristol. Otherwise there have been no changes in quotations.

In flat papers there is, according to the trade, a slight falling off from the record of the first six months of 1923 but, on the whole, considering the quietness which prevails in many allied lines, the volume of orders has been very fair. In coarse papers, there is some quickening of interest and jobbers say that tonnage there has made heavier showing than for the corresponding six months of last year but not in aggregate values. Envelope producers are slack and the paper box trade, except in a few specialties, is by no means rushed.

The twine market is rather inactive at present and during the past week there was a drop of four cents a pound on all lines of cotton twines.

Pulpwood Outlook Is Not Promising

It is not likely that there will be much demand for pulpwood this fall and contractors are not so eager to enter into contracts with settlers and others as they were a year ago, owing to the diffident attitude adopted by the pulp and paper companies who, in view of the rather uncertain outlook and quiet market at the present time, do not care to make heavy committments. Of course, a fair amount of wood is being taken out in Northern and Northwestern Ontario and the tendency is for prices to be a little lower than last year. Poplar is in pretty fair demand. The peeling season for pulpwood is now at its height and quite a number of men are engaged in this work in Northern Ontario.

Another reason why there is not more life to the market at the present time is doubt and delay concerning what the Royal Commission on Pulwood will say regarding an export embargo. It is stated now that the session of the Federal Parliament is over, the Commission will make its report but that its finding will not be made public for some weeks.

It is further reported that the Commission will not make any definite recommendation but will set forth certain facts and summarize in detail the data that has been brought before it, without any decision being presented in the matter of an embargo on wood cut and exported from private lands.

New Waxed Paper Industry Starts

The Canada Waxed Papers Company, Yonge street, Toronto, is a new concern which was recently launched and is turning out all kinds of waxed products. The members of the company are James McArthur, who for many years was attached with the British American Waxed Paper Co., Toronto, being managing director of that organization, and George Courtenay, who hails from Belfast, Ireland, where he got his initiation into the paper business some fifteen years ago in the employ of W. & G. Biard, Limited.

Complete New Factory

Gummed Papers, Limited, Brampton, Ont., which recently completed a new factory, is now operating that, in addition to the old plant. The company has been making rapid progress of late and manufactures flat gummed papers of all kinds, cloth-lined papers, waterproof papers, sealing machines, stay-papers, etc.

Suit Over Pulpwood Purchase

Justice Wright recently delivered judgment at Toronto, awarding the sum of $830 and costs to M. E. Woodcock, storekeeper, of Klock, Nipissing district, who sued G. B. Ferguson and J. H. Findlay, lumbermen, of Renfrew, Ont., to recover $15,000, being the sum alleged to be due under an agreement for the purchase of 5,000 cords of pulpwood at $9 a cord. It was argued that, after 1,900 cords had been cut and delivered, the defendants refused to take any further deliveries. The court found that the claim for damages was very much over-estimated.

Notes and Jottings of the Industry

H. J. McCreery, manager of the Canadian Sirocco Company at Toronto, has resigned from that position upon being appointed by the Combustion Engineering Corporation Limited to take charge of the company's Vancouver office. Mr. McCreery has interested himself in power plant problems for a number of years. He will be leaving very shortly to take up his residence at the Pacific Coast.

H. B. Donovan, sales manager of the Canada Paper Company, Toronto, spent the past week on a business trip to Montreal.

N. R. Wessels, of the sales staff of the Allen Paper Company, Toronto, and wife, are enjoying a vacation at Bala, Muskoka district.

Herbert Gage, of Toronto, who is well known in the coated paper industry, wife and family, have returned from an enjoyable trip to England. They visited the British Empire Exhibition.

H. G. Finlay, vice-president of the United Paper Mills, Toronto, has gone on a motor trip to Bay View Beach, Maine, where he will spend a few weeks.

Colonel Thomas Gibson, president of the Fort William Paper Company and vice-president of the Spanish River Pulp and Paper Mills, and family are spending their vacation at Cedarhurst, Lake Simcoe.

Fred M. Halls, manager of the Fred W. Halls Paper Company, of Toronto, at the London, Ont., branch, and wife, have been enjoying a few days at Sturgeon Lake, Ont. W. T. Halls, of the Toronto office, is also holidaying at the summer home of the family.

R. G. Jennings, of the Ratcliff Paper Company, Toronto, is enjoying his vacation at Montreal and other points.

G. F. Hughes, western Ontario representative of the Allen Paper Company, Toronto, has returned after spending a pleasant holiday in Lennox and Addington counties.

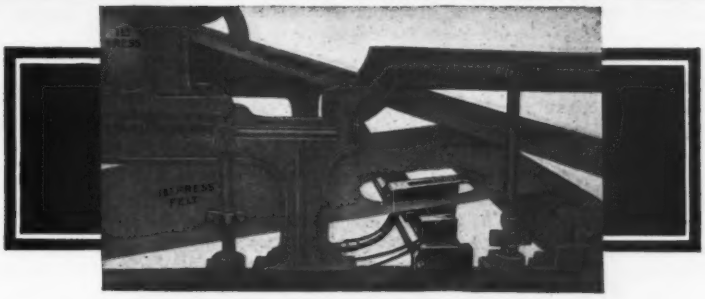
J. G. Gibson, secretary of the Spanish River Pulp and Paper Mills, Toronto, and family, are at their summer home near Beaumaris, Muskoka Lakes.

W. F. and Walter Christie, of the Christie Company, Toronto, and families, are spending their holidays at Trent Bridge on the Trent canal waters.

W. G. Lennox of the United Paper Mills, Toronto, is back after a holiday trip which he spent in Detroit and other cities.

Stanley J. Butler, of Toronto, who was employed in the Backus-Brook Company, at Kenora, Ont., fell into a beater in the pulp room, was mangled terribly and died soon after. He was twenty-seven years old.

Why the BIRD MACHINERY VICKERY Felt Conditioner should have a place on your paper machine



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ORDERS FROM OUT OF TOWN HELP PHILADELPHIA TRADE

City Business, However, Continues Slow, Although Better Conditions Are Said to Be Close at Hand—Paper Box Men of Central and Eastern Divisions Hold Meeting—Spring Garden Improvement to Benefit Paper Row—Fobopak Co. Opens More Container Plants—Paper Mills Sold as Result of Bankruptcy Proceedings—Kelly-Hughes Co. Repairing Building Damaged by Fire.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., July 22, 1924.—While the city trade is lagging in the wake of seasonal dullness and the general marking of time attitude which has taken hold of the industrial world generally, there has been a slight improvement for the out of town shipments to parts of Eastern Pennsylvania. The big consumers of paper are the city manufacturers, textile plants, department stores and other industrial enterprises in the coarse paper divisions and the printing and publishing trade in the fine paper section, so that the better demand in the out of town markets has not been materially reflected in any wide spurt of activity. It is, however, a forerunner of better conditions that have their foundations in the fundamental industries from which come the raw materials used by the nation's large industries such as coal supply, iron ore, steel and other basic products. Those salesmen who cover the up State districts report better orders from all sources of consumption of coarse papers with a very slight demand for the fine papers except from the stationery trade in the coal regions where social and commercial writings have been more plentifully ordered. It is the coal regions which have been most prosperous so far this summer. With miners demanding attractive wages and spending accordingly business in that territory has been normal and in many of lines above normal.

Box Makers Supplies for Up State

In the city where the box making industry is feeling most keenly the let up in operation of the large textile, clothing, and manufacturing world, there has been very little placement of the Fall requirements which usually make their appearance about this time. A few specialty boxes for the Holiday and Gift season have been actually ordered but they are of so small proportions that it will take up very little operating space in the plants. Supply dealers who cover up State give much better reports of the box manufacturing trade in that section and have received fairly good sized bookings for all lines of box makers' papers with the exception of Board, many of the larger producers having secured tonnage shipments of the news and chip several months ago when the market prices ranged around the $35 mark as against the present price of $42 and $45, for news and chip respectively.

Paper Box Association Convention

Although there are but few bright spots in the horizon of the box making industry at this time it did not shed gloom over the joint meeting of the Central and Eastern Divisions held on July 15 and 16 at the Traymore Hotel in Atlantic City. There were in attendance more than 116 members and supply men who make up the Supplies Division, and their two days' session was one of a diversified social and business program radiating with optimism and good fellowship. On the first day of the Convention there were separate meetings of the two Divisions in the assembly room of the Traymore, followed by election of officers.

Among the speakers were president Frank Stone, who was elected at the Swampscott Convention, and who hails from Philadelphia, where he is associated with the firm of the Jesse Jones Company; Henry Stortz, Henry Schimdt Paper Box Company, of Philadelphia, George F. Barber, attached to the national headquarters, and H. P. Beckett, field secretary of the National Association. The annual report of secretary-treasurer Frank S. Records of the National Association was presented. Officers were elected as follows:—General Division: Arthur J. Burch, New York; vice-chairman, E. P. Franke, Baltimore Eastern Division: E. H. Rogers, New York; vice-chairman, Harold Ulrich, New York. The advisory board chosen at this meeting consisted of Walter E. Trum, William Meyer, William Dalton, William Reichart and to the auxiliary board, Charles A. Leroy, Herman M. Hess, Edward Duffy, Walter Van Ness, Fred Seigfried, William Graber, G. Edgar Mooney, Harry Levy, William Casselman, Bernard Rubin and A. T. Rush.

Coarse Paper Meeting

At the monthly meeting of the Coarse Paper Division of the Philadelphia Paper Trade Association held in the Bourse on Thursday, Nathaniel Saxe, of the Saxe Paper Company, 3rd and Race streets, presided. Owing to the absence from the city of many of the members of the trade, little business was transacted.

Hemingway Co. Gets Typothetæ Contract

A formal contract was entered into during the week by Typothetæ of Philadelphia with the Hemingway Company for its collection of Paper Stock from the shops of members of the Waste Paper Division for a year. This company had the contract under continuation of an old one, but now that the project of a new corporation to gather the waste has been abandoned, the papers were signed for another year's service.

Sixth St. Improvements Vital to Paper Row

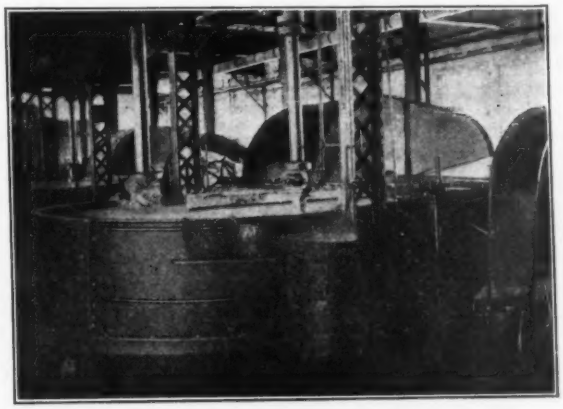
Plans of the municipal government to improve and widen Spring Garden, beginning at the Sixth street junction have a vital significance for the dealers who center in what is popularly known as Paper Row. The widening of Sixth and Spring Gardens streets is an assured fact, the bids for the paving and curbing and other details of road construction having been advertised during the week. It will include the opening of Spring Garden street, beginning with the Sixth street terminus at a width of 120 feet and extending the full length of that highway to the Delaware River Front and making it one of the most important streets in the east and west traffic in the city because of its main approach to the new Philadelphia-Camden Bridge, now in course of construction and which will open in 1926. With the plans of the city to broaden this approach to the Delaware River Bridge, its joining with 6th street makes Paper Row form in line with the busiest down town highway connection with that important engineering attainment. It will become the leading artery of traffic between the central city and the Bridge approach and its real estate and business valuations are bound to soar with the opening of this important connection between the two States on the Philadelphia-Camden border. There are among the paper houses in line with this latest improvement and comprising Paper Row, the Garrett-Buchanan Company, D. L. Ward Company, J. L. N. Smythe Company, Thomas W. Price, A. S. Datz and Son, Quaker City Paper Company, Paper House of Pennsylvania, Penn Card and Paper Company, Philadelphia Card and Paper Company, Riegel & Co., Simon Walter Inc., Edward Grossman Curtis and Brothers, Inc., Paper Manufacturers Company and John Simmons and Sons. In fact two thirds of the paper houses of the Philadelphia trade are either directly situated on 6th street or adjoin it.

Fobopak Co. Opens More Container Plants

Originally a Philadelphia institution with its only factory located at Manayunk adjoining the largest local paper mills of the Philadelphia Paper Manufacturing Company, with which it was allied, the Fobopak Company has extended its manufacturing to two other cities where there are now in operation similar container producing divisions. It was announced during the week by the local com-

(*Continued on page 60*)

Dilts-



Great Northern Paper Co., Madison, Maine

FROM MAINE

Great Northern Paper Co., Madison, Maine
Continental Paper Bag Co., Ashland, N. H.
Bird & Son, East Walpole, Mass.
National Folding Box Co., New Haven, Conn.
Arrowhead Mills, Inc., Fulton, N. Y.
Flintkote Co., Little Ferry, N. J.
Union Mills Paper Co., New Hope, Pa.
Dist. of Columbia Paper Mfg. Co., Washington, D. C.
Philip Carey Mfg. Co., Lockland, Ohio.
Terre Haute Paper Co., Terre Haute, Ind.
Consolidated Paper Co., Monroe, Mich.
Robert Gair Co., Chicago, Ill.
John Strange Paper Co., Menasha, Wisc.
Hinde & Dauch Paper Co., Ft. Madison, Ia.
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SWEDEN'S NEW FORESTRY LEGISLATION

The problem of growing new forests has probably been attacked more assiduously in Sweden than in any other country in the world. Elaborate regulations, covering not only the cutting of lumber in Sweden but also covering re-forestation, have been in effect a long time. A meeting of representatives from the industry was recently held at Stockholm at which time forestry regulations and rules were worked out in still greater detail. In view of the very great interest now being manifiested in all parts of the United States in forestry problems, the PAPER TRADE JOURNAL believes that many members of the American pulp and paper industry will be more or less interested in the new Swedish forestry law. This law became effective last year. Of course, no such comprehensive scheme is necessary and even contemplated in this country but it gives some idea of the interest which is displayed in this matter in Sweden and shows the effort which is being made to perpetuate the forests and the lumber industry.

The new Swedish forestry law follows:

CHAPTER I—PURPOSE AND SCOPE OF THE LAW.

Article 1.—According to the regulations of this law woodland is to be used for forestry purposes.

The supervision of the observation of this law is administered in each county district, where this law is applied, by the Forestry Board there.

With regard to woodland subject to the regulations in this law and located within the limits of a city without representation in the County Council, the supervision is executed by the Forestry Board in the County Council district surrounding the city.

Article 2.—Par 1. The application of this law does not include:

(1) Forests, located within the Provinces of Gottland, Vasterbotten and Norrbotten.

(2) Those forests, located south of the Province of Vasterbotten, which are subject to the regulations in the Decree concerning the marking of certain trees in the so-called "Lapp-territories" of the provinces of Vasterbotten, Norrbotten and other districts.

(3) Forests in the Kopparberg and Gavleborg provinces set aside as public domain or for conservation purposes.

(4) Forests of cities.

(5) Protective forests and the drift-sand plantations in the Province of Halland mentioned in the Royal letters of June 16, 1847, and July 27, 1860.

(6) State forests leased for use in mines.

(7) Forests on state domains leased for agricultural purposes and belonging to ecclesiastical beneficiaries.

(8) Other forests, not mentioned above, to which the Decree of January 26, 1894, concerning husbandry with regard to public forests applies, or the forests mentioned in Article 4 of the aforesaid Decree.

Par. 2. If forests referred to in Par. 1, 7 and 8 are united with forests subject to this law, the law is to be applied to the whole forest district.

Par. 3. If a forest subject to this law is owned by an association or society, formed for the promotion of forestry in the interest of the public, or if the care and administration of the forest is executed in co-operation with and under the supervision of such a society, the King is entitled upon request to make a provisional exemption from the application of the regulations of this law with regard to such forests, if the statutes of the society have been ratified by the King.

The Board of Domain Administrators exercises supervision over forests which have been granted such exemption.

CHAPTER II—TIMBER FELLING, YOUNG FORESTS

Article 3.—Young forests may not, except in the cases mentioned in Article 4, be felled in any other manner than through thinning appropriate for the development of the forest.

Article 4.—Par. 1. Notwithstanding the provision of Article 3 felling of young forests may take place:

(1) In cases where, in order to fill the household needs of the property or any property co-operated with it or in order to comply with a timber-lease granted before the 1st of January, 1923, there is no other timber on the property to resort to or the need of timber cannot be filled from such source.

(2) In cases where felling is supposed to be a link in scientific administration or otherwise corresponds to good forestry.

Felling according to section 2 may, however, only take place in accordance with permission received from the Forestry Board, and the Board is authorized in special cases to make such stipulations or restrictions as the conditions may necessitate with regard to felling according to 1 and 2.

Par. 2. Wood, which in accordance with Par. 1 has been cut for domestic use, may not be used for other purposes without the consent of the Forestry Board.

TIMBER FELLING, OLD FORESTS

Article 5.—Felling of forests, not to be considered as young, may not be carried on in such a way, or, subsequent to lumbering operations the ground be so treated, that the regrowth of the forest is imperilled.

Neither may felling for other purposes than those mentioned in Article 4, Par. 1, section 1, take place without permission from the Forestry Board to such an extent that the property thereby in the future might become short of wood for domestic use, estimated on the conditions of the district. In spite of this regulation a timber-lease, granted before January 1, 1923, may be carried out, in accordance with the provisions of the law already in force.

JOINT REGULATIONS

Article 6.—Should anyone, having planned or commenced the felling of trees in a district, desire a statement of opinion from the Forestry Board as to whether a certain forest is to be considered as young or how felling is to be carried out without violating the regulations in Articles 3, 4 and 5, he should make a written application to the Forestry Board in the matter.

Felling carried out in accordance with such a statement is to be considered as legal.

Article 7.—Par. 1. Should the Forestry Board find on investigation of the land necessary in order to deal with questions referred to in Articles 4, 5 and 6, such investigation is to be executed by the district forester, or in some other manner prescribed by the Board. Furthermore, the Board may, if conditions render it desirable solicit the opinion of a person versed in husbandry.

The cost of such an investigation or examination is to be defrayed by funds administered by the Forestry Board, the applicant, however, furnishing necessary help and if marking is executed according to his wish he is to pay for this work as stipulated by the Forestry Board each year.

Par. 2. The final decision of the Forestry Board in matters referred to in Articles 4, 5 and 6 is to indicate the period—five years at the utmost—during which it is to be valid and be delivered to the applicant with proof of delivery as soon as possible.

Article 8.—Par 1. Should felling be carried out contrary to the regulations in this Chapter or stipulations issued in accordance therewith, or if the Forestry Board owing to a completed marking or some other legitimate cause, finds reason to believe, that felling has been planned, which would conflict with the mentioned regulations or stipulations, the Forestry Board may, should it be found imperative, prohibit felling on the property, where it was to have taken place or had been planned without the permission of the Board. The Forestry Board may, however, limit the prohibition only to apply to a certain portion of the property or in some other manner restrict the prohibition, as for instance by allowing certain trees to be felled or order the felling of as much wood as may be necessary for the household use of the property under prohibition or any property connected therewith. Before carrying out the prohibition regulations, the owner, and, if felling has been executed or planned by somebody else, this person, is to be allowed to give his opinion in the matter. If the Forestry Board finds the matter to be of such a nature that a respite is not advisable, a prohibition edict may be issued provisionally and until some other provision has been ordained.

Such prohibition is to be enforced at once irrespective of appeal.

Par. 2. The Forestry Board is entitled to authorize the forester of the province or some other employee of the Board, who has fulfilled the conditions prescribed for employment as a forester, in cases referred to in Par. 1, where it is essential that the prohibition referred to is enforced before the Board has had time to meet, to execute such prohibition measures are to be taken so as to insure a satisfactory result. The measures thus executed must be reported by the employee to the Chairman of the Board without delay. It then devolves upon the Board to decree in the matter. Should such prohibition measures not be confirmed by the Board within ten days after the day, when they were issued, that day not included, they are to become void.

CHAPTER III—MEANS BY WHICH TO INSURE REGROWTH

Article 9.—If after felling, the remaining forest is not sufficiently thick or of such a quality that it, in consideration of the existing climatic conditions, can be considered satisfactory and a natural regrowth cannot be expected within reasonable time, measures cannot be taken so as to insure a satisfactory reproduction within reasonable time on the area which has been subject to felling. A forest thus reared must be maintained until it has developed so far, that it no longer need be considered as a plant-forest.

Article 10.—Par 1. Should a forest be damaged by fire, storms, snow-storms, devastation from insects, or by grazing of domestic animals or through some other damage, the regulations prescribed in Article 9 regarding measures in order to insure a satisfactory regrowth after felling are to be applied correspondingly. However, this is not obligatory as in the aforesaid Article.

When the owner of the land has not intentionally, or owing to neglect of obligations incumbent on him, caused the damage and it has not been caused by grazing of domestic animals, measures by which to insure regrowth may not be insisted upon, which would cost more than the value of the fallen trees which remain on the property or which have been used by the owner; also of the remaining trees which have been damaged to such an extent that they ought to be felled or which have to be removed as cumbersome to a satisfactory regrowth, together with any compensation which the land-owner may have received in connection with the damage.

Par. 2. If in cases referred to in the second section of Par. 1 the obligation mentioned therein should be especially burdensome, the Forestry Board may upon application consent to a reasonable restriction.

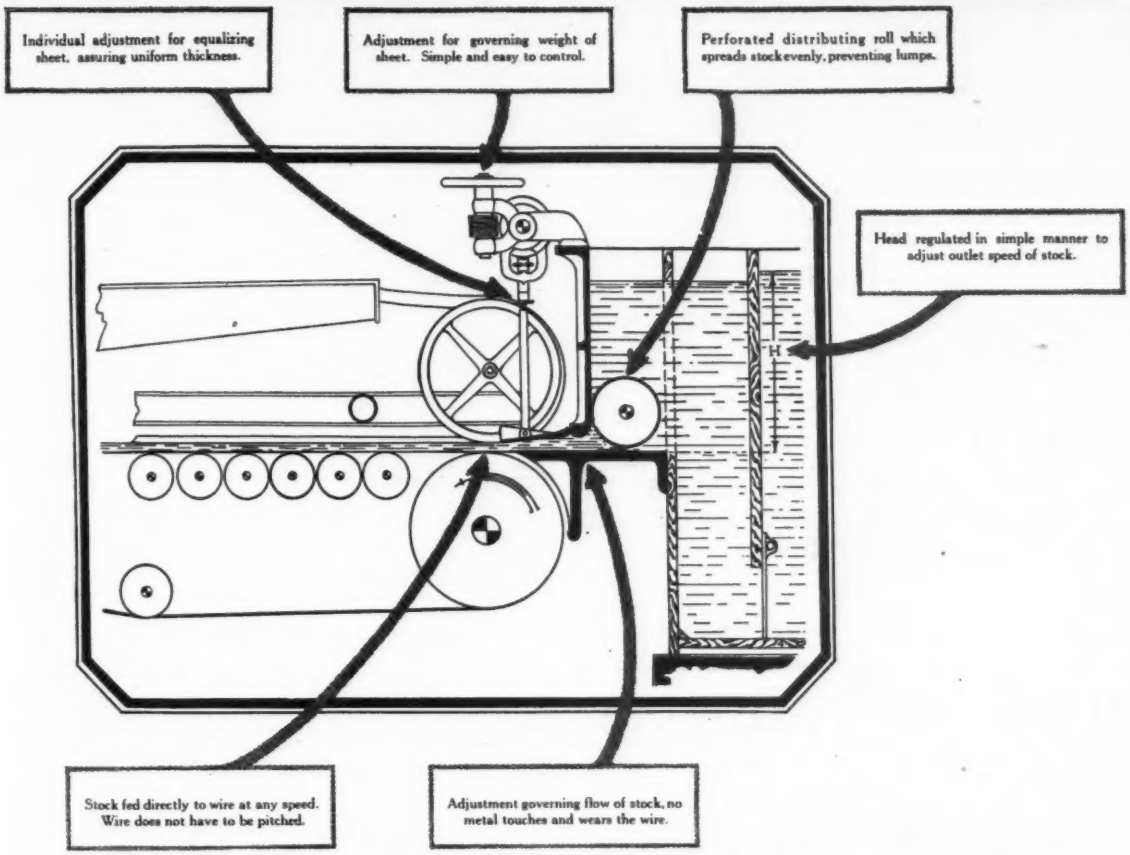
Article 11.—The owner of forest-land is responsible for the execution of measures necessary in order to insure regrowth. Should a conflict exist as to ownership of the land, the person is to be considered owner, who has it in his possession and claims the right of possession.

If felling has been executed by a previous owner or by the assignee of the timber-lease, he shall also be responsible to the Forestry Board for expenses connected with measures for regrowth necessitated by the felling. However, he is entitled to ask the land-owner to refund him for such expenses, unless otherwise agreed upon, or, if the assignee of the timber-lease himself has been responsible for the necessity of such measures on account of transgression of the granted timber-lease.

Article 12.—If the Forestry Board finds that measures in order to insure regrowth are necessary in accordance with this law, the Board is to try to make an agreement concerning all the measures which have to be taken for this purpose and concerning the period within which each of them must be fulfilled with the person or persons who legally are responsible for insuring the regrowth. Such an agreement is to be in writing.

If such an agreement cannot be reached the Forestry Board may, if it does not consider that the matter imediately need be brought before a court, request the county government to make an investigation of the felling district. In order to do so the County Government will appoint a State forester, who, assisted by two reputable trustees, which he is to select from persons who have been chosen as members of a partition court, trustees of a land-surveying office in the neighborhood or members of a district court, is to investigate the matter at the place in question and report to the Forestry Board on the matter and propose which measures are necessary for the restoration of the land to forest growing area. Should the surveyors be of different opinions, the various opinions are to be reported to the Forestry Board.

When the above mentioned investigation has been made it is the duty of the Board to once more try to reach an agreement as mentioned above.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Article 13.—If such an agreement, as is referred to in Article 12, cannot be reached the Forestry Board is to bring the matter before a Court which is to decide which measures, in accordance with the conditions, are to be taken in order to insure the regrowth and to stipulate a certain period within which time the prescribed measures are to be fulfilled.

Article 14.—Measures for the ensuring of regrowth, decided upon by agreement or Court decision, are to be binding with regard to future owners ot the woodland.

Article 15.—It the period, stipulated by an agreement or Court decision, for the carrying out of certain measures for the insuring of regrowth, has elapsed and there is reason to believe that the measures have not been fulfilled, the Forestry Board is to investigate the matter by survey of the land. Such a survey is to be performed by the forester of the Province, or some other person authorized by the Forestry Board and two such trustees as are referred to in Article 12, section 2, and who have been summoned by the Board. The land-owner, and, in cases where the Forestry Board intends to enforce the obligation of being responsible for the costs of regrowth on someone else, this person is to be summoned to attend such a survey. A report of the survey is to be sent in to the Forestry Board.

If the party or parties concerned in a written statement acknowledge that the measures prescribed have not been fulfilled, such survey, as referred to above, is not necessary.

It rests with the Board to arrange for the carrying out of measures which in accordance with the first and second sections above have been found to be neglected.

Article 16.—If the Forestry Board has been instrumental with regard to the taking of measures mentioned in Article 15 the administrator of jusitce may, at the request of the Board, immediately collect the costs of the measures as well as of the previous survey from the party or parties concerned, provided that the Board can prove a clear case of neglect and the total costs are proved by certified bills.

Should anyone, from whim expense have thus been collected wish to make any complaint with regard to the amount demanded in payment or wish to make a reclaim, applications must be made to a court within three months after the amount has been collected or sooner if payment has been executed on condition that the debtor be entitled to make a reclaim.

Article 17.—Should felling be executed in such a manner that regrowth will entail a considerable amount of sowing, planting or other comparatively expensive cultivating measures, the Forestry Board is entitled in cases where it has not declared such safety measures unnecessary in accordance with Article 6, to demand satisfactory guarantees for the cost which these measures will involve according to the Board's calculations.

If the guarantee mentioned in the above section is not submitted to the Forestry Board upon demand, the Board is entitled to prohibit felling as per Article 8.

Such prohibition is to cease when the demanded guarantee is given or necessary measures for the insuring of regrowth have been taken by the responsible party, or if payment for any measure, executed for his account, has been made to the Forestry Board.

Chapter IV—Special Regulations With Regard to Forests Difficult to Rejuvenate.

Article 18.—Par. 1. In districts where, owing to the woodland's situation in the offing or on heights or on account of an especially exposed situation, it generally might be expected that in case of careless falling of existing forests regrowth might be made impossible or regrowth which might be expected would be unreasonably late or of inferior quality, the Government may, at the request of the Forestry Board and after making survey and investigation, decree that forests in such districts, being difficult to rejuvenate, are to be subject to the regulations in Articles 19, 20 and 21.

Such a decree may also be issued by the Provincial Government and be valid until the Government has arrived at a decision in the matter.

Should a decree, issued in accordance with the above no longer be found necessary, entirely or partially, it may be recalled by the Government.

Par. 2. Forests on the island of Oland are subject to the regulations in Articles 19, 20 and 21, even if no decree has been issued in accordance with Par. 1.

Article 19.—With regard to felling in forests difficult to rejuvenate the regulations in Chapter 2 concerning the cases mentioned therein are to be applied correspondingly, observing:

(1) That in places where the Forestry Board finds it necessary that certain trees be kept as seed-trees or that, in order to protect regrowth, felling for domestic purposes within a certain district for some time hence may not take place in which cases the seed-trees are to be marked plainly and such districts marked out plainly and felling of the seed-trees within the district is not to take place before the Forestry Board has granted permission to do so, and

(2) That felling for other than domestic purposes may only take place with the permission of the Forestry Board, the owner being entitled to receive permission to fell at one time as large an amount as is compatible with the regrowth of the forest but observing that felling to such an extent which will necessitate special measures in order to insure regrowth, may only be consented to if such measures can be performed without causing undue expense, and that, if felling is not necessitated owing to the condition of the forest or rendered necessary in accordance with the demands of good forestry, the property may not be deprived of timber for domestic use in the future through undue felling.

Article 20—When permission to fell is granted in accordance with Article 19, marking must as a rule be done by the county forester or some other person authorized by the Forestry Board, and the stamp of the Forestry Board be affixed to the marked trees by the executor both at the root and on the trunk at shoulder height. The following permit shall prescribe that in felling the mark on the root must be left on the stump.

Instead of marking, directions—if such be deemed sufficient—alone may be given with regard to a certain district where felling may be carried out, the limited section, however, having to be marked clearly in such cases.

If the Forestry Board finds it evident that felling, permit for which has been solicited, will not imperil the regrowth of the forest both marking and directions may be declared unnecessary.

In a felling permit regulations with regard to the method of felling to be used may be included, if they are deemed necessary.

Article 21.—With regard to measures to be taken in order to insure regrowth of forests difficult to rejuvenate, the following regulations are to be applied in addition to the regulations in Chapter III:

(1) When issuing permits to carry out felling of forests difficult to rejuvenate the Board is also to prescribe the measures necessary for insuring regrowth. Through the execution of these measures the obligations stipulated in Article 9 shall be considered fulfilled. The permit is also to prescribe the period within which the measures in question are to be carried out.

(2) The regulations in Articles 14 and 17 relative to the cases mentioned therein are to be applied correspondingly with regard to regrowth measures ordained according to this article.

Chapter V.—Special Regulations with Regard to Wood Tracts Which Have Become Fen-Land and the Usage of Such Tracts for Other Purposes Than the Growing of Forests

Article 22.—This law does not apply to woodland which has become fenland when it is clear that growth and regrowth cannot be insured without involving undue costs.

Article 23.—The regulations in this law are not to prevent the conversion of woodland into gardens, arable land, building lots, roads or the like; neither are they, if the land is suited therefor and not of a larger area than may be considered reasonable, to prevent the cultivation of permanent pasture-land and meadow-lands by means of clearing or some other special measures.

However, permission must be obtained from the Forestry Board for such conversion referred to above:

(1) If the land is located in a district, with regard to which a decree has been issued in accordance with Article 18, or if it is situated on Oland, felling and conversion may only be allowed if it is not found necessary that the land still be used for the growing of forests as a protection against devastation of neighboring grounds, and

(2) If conversion into pasture-land or meadow-land or other woodland than is mentioned in (1) is planned and if there is a young forest on the land.

When granting permission in accordance with this article the Forestry Board is also to stipulate the period within which the measures necessary for the purpose in question are to be fulfilled.

The regulations in Article 7 relative to the cases mentioned therein are to be applied correspondingly with regard to questions mentioned in this article.

Article 24.—If a woodland-owner, who has been instructed to take certain measures in order to insure the regrowth, wishes to convert the woodland for some other purpose mentioned in Article 23, the Forestry Board is entitled to demand a written declaration from him to the effect that he, within a certain time, approved of by the board, will take the measures necessary for the conversion.

If such a declaration is not submitted, the Forestry Board is to have the matter brought before a court, which is entitled to make the provisions called for by the conditions.

With regard to the declaration and court decision mentioned in this article the regulations in Article 14 are to be applied correspondingly.

If a woodland owner does not carry out what he has undertaken to do or been instructed to do in accordance with this article within the stipulated time, the court may, upon action of the Forestry Board, prescribe a new period, in accordance with the condition, for the fulfillment of the necessary measures for the conversion of the land, or decree that the woodland district be restored into forest-bearing land and prescribe the measures to be taken for such purpose.

Chapter VI.—Regulations Concerning Responsibility

Article 25. (Par. 1)—Anyone, who carries on felling, in manifest conflict with the regulations in Article 19 or 23 (1) or in conflict with the instructions or felling prohibitions, in compliance with this law, or, who contrary to the regulations in Article 4, Par. 2, disposes of wood which has been felled for domestic use, is to be punished by a fine of from 25 to 5,000 crowns.

When sentencing to punishment according to this paragraph the wood which has been felled, if left in the forest or taken away and still in the possession of the feller, is to be seized and confiscated. Should such wood escape seizure, the person who has executed the felling is liable to pay a compensation corresponding to the value of the wood. If the prohibition, subsequent to the felling, has been recalled through a legalized decision owing to the fact that the prohibition should not have been imparted, the wood may not be confiscated, nor may compensation be required as stated above.

Par. 2.—If in cases where the permission of the Forestry Board according to Article 23 must be requested for the conversion of woodland for some other purpose, felling is performed, but the measure, the execution of which was to have taken place within a period stipulated according to the regulation in the aforesaid article, has been neglected, the punishment is to be a fine of from 5 to 500 crowns. If, however, several during the stipulated period, have been responsible for the execution of the measure the one of them who is found least responsible for the unfulfillment of th measure, is to be free from responsibility.

Par. 31.—If such offense referred to here includes delinquency against the General Penal Law the deed is to be judged according to the regulations with regard to similar cases in Chapter IV, Par. 1 of the Penal Law. If the offense merits punishment in accordance with Par. 1, Section 2, such punishment is also to be inflicted.

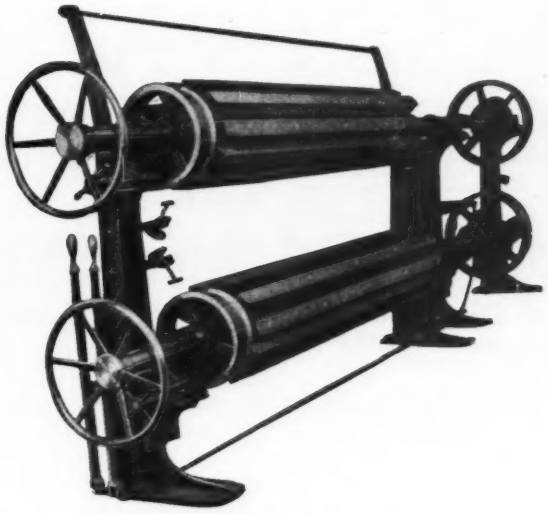
Article 26.—The general prosecutor and the Forestry Board have the same authority to prosecute offenses, mentioned in Article 25, and to seize wood which may be sentenced for forfeiture. The last mentioned authority is also held by the provincial forester or other employee of the Forestry Board with forestry education. Seizure executed in accordance herewith is to be reported as soon as possible and within 14 days to one of those entitled to prosecute.

If prosecution has not been instituted within 45 days after the execution of the forfeiture is to be annulled; the Forestry Board being entitled to remove forfeiture, executed by any of its employees before prosecution has been commenced.

Article 27.—Wood, which has been forfeited according to law, is to be sold at public auction by the prosecutor. If before the question of the forfeiture has been finally considered, the owner of the wood demands that it be sold, or if after notification from the prosecutor, the executor general finds that there is danger of the wood being destroyed, or that the expense for its storage would be unduly high, he is to prescribe that the wood be sold in the manner just mentioned; and in such case, the owner of the wood, if he is known and resides in the country, or if he lives abroad but has an agent within the country who is authorized to accept summons in his stead and to make defense for him, this agent is to be informed by the prosecutor of the auction at least eight days before it is to be held. Such notification by the prosecutor, as is mentioned above, is to be accompanied by a complete list, duly certified by two trustworthy men, giving the amount and quality of the wood.

Article 28.—Fines, charged in accordance with this law, as well as profits acquired through the sale of forfeited wood and compensation claimed for wood which has escaped forfeiture, go to the Forestry Fund, which the proper Forestry Board in question administers.

If confiscated wood is sold before it has been forfeited the sum obtained through the sale is to be deposited in the Riksbank, in the manner therefor prescribed, until a final decision in the matter has been made. The regulations in Article 160 of the Execution Law are also to be applied with regard to the depositing of such funds in a bank.



No. 82—Beloit Upright Reel

Meeting All Requirements For Safety

A STANDARD safety-first upright reel made to conform with strictest regulations of state laws as to clearance between drums, which rotate in opposite directions, making it impossible for a man to get drawn in between them. Spools are made either of wood bat construction or of cast iron, as preferred. Drums are made for end and side adjustment. They are equipped with frictions for use when unwinding. Also equipped with friction clutches for starting and stopping. Special attention given to lubrication of bearings, which are self-aligning. Well built throughout for steady service.

Send Your Specifications to Beloit for Satisfaction

Beloit Iron Works **Beloit, Wis., U.S.A.**

Established **Since 1858**

Article 29.—Should there be no available assets with which to pay the fines imposed on anyone in accordance with this law, they are to be converted in compliance with the general penal law.

CHAPTER VII.—PROVISIONS FOR APPEAL

Anyone not satisfied with the final decision of the Forestry Board with regard to questions referred to in Articles 4, 5, 8, 17, 19, 21 or 23 may make an appeal to the government of the province. In cases referred to in Article 8 and 17 the right to make such appeal is not to be limited to any certain period, but in other cases—at the danger of being non-suited—appeals must be made before 12 o'clock on the 30th day afetr the complainant received notice of the decision. Information of this fact is to be given in the decision.

If the complainant requires that the government of the province make an investigation of the land or if the government finds such investigation necessary owing to some reason it shall authorized an employee of the Forest State, who, assisted by two such trustees as those mentioned in Article 12, Section 2, is to investigate the case at the place in question and send in a report in the matter. The cost of such an investigation is to be advanced out of funds administered by the Forestry Board, but may through the final decision of the government of the province, be imposed upon the complainant if he has requested the investigation.

Par. 2.—A complaint against the decision of the government of the province may be made to the King through an appeal, which must be submitted to the Department of Agriculture before 12 o'clock on the 30th day after the day when the complainant received notice of the decision in question.

Article 31.—From the final decision in a case under this law, appeal may be made, provided, however, that the case may not be prosecuted if it concerns responsibilities imposed by this law.

No complaint may be made against measures taken by the executor general with regard to such a request as is referred to in Article 16.

TRANSIT REGULATIONS

This law, by which the law of July 24, 1903 (No. 79 s. l.), relating to care of private forests, and of April 13, 1922 (No. 158), concerning the continued appliance of the law of June 20, 1913, relating to care of private forests on Oland are annulled, is to be enforced on the first day of July, 1923.

However, the following is to be observed with regard to the application of the new law:

(1) If, when this law comes into force, a timber lease, agreed upon before January 1, 1905, is still valid, the lessee and not the land owner is responsible for the performance of the measures necessary in order to insure regrowth in connection with felling, which the lessee is carrying out.

If such a lease as is referred to above and agreed upon while the Forest Law of 1903 was valid is still in force, the responsibility for the measures to insure regrowth after felling, carried out in accordance with the lease, still rests with the person who, according to the aforementioned law, has been responsible.

(2) With reference to felling which has taken place before the enactment of this law, the previous law is to be applied, with the exceptions that with regard to the sequence through which an agreement or court decision concerning necessary measures for the insuring of regrowth, is to be reached, the new law is to be valid, and that prohibition in accordance with the previous law may not be granted.

(3) If marking with reference to a forest on Oland has taken place or a felling permit has been granted in compliance with the previous law pertaining to Oland, and the felling has not been performed before the enactment of the new law, it may be done afterwards, but not later than within five years from the notification of the permit or the shorter period which then may have been fixed.

(4) The regulations in the new law regarding the responsibility to take certain measures in order to insure regrowth on account of such damage as is referred to in Article 10 are not applicable when such damage has arisen before the enactment of this law.

(5) If, in accordance with the law previously in force regarding temporary measures to be taken in order to prevent devastation of forest land on private property, a decree has been issued by the government of a province concerning woodland within a coast district, it is to be considered as if the decree had been issued in compliance with Article 18, paragraph 1 of the new law. Appeals in this connection are made to the King. If the government of a province has been requested to issue such a decree as is referred to above and a decision in the matter has not been made before the enactment of the new law, it is to be considered, that the request refers to such decrees as are mentioned in Article 18, paragraph 1 of this law. The validity of a decree issued by the government of a province in connection with such a request is not to expire if the decree is in force on the 30th of June, 1923.

Forestry Almanac

Those who are interested in our forestry problems will find a great deal to enlighten them in the Forestry Almanac published by the American Tree Association. Charles Lathrop Pack, president of the Association, contributes a foreword under the title of "Forestry and The Forest Problem." The story of the United States Forest Service is then told with a comprehensive history and a condensed summary of its accomplishments. A chapter is devoted to National forestry legislation and this is followed by much useful information as to the manner of planting trees, selected list of trees, etc. There is a brief chronicling of the work of those associations which are devoted as a whole or in part to forestry. In fact, the 216 pages include mention of practically every phase of forestry and of every subject which in any material way touches it. To those who have no profound knowledge of forestry the book will prove a veritable education while to those who are well informed on the subject there is offered much in the way of statistics and detail which will not fail to add to their fund of knowledge. The book comes from the press of J. B. Lippincott Company, Philadelphia, Pa.

New York Trade Jottings

Walter Hicks of Daniel M. Hicks, Inc., 200 Fifth avenue, is spending a two weeks' vacation at Shelter Island.

* * *

M. Gottesman of M. Gottesman & Co., 18 E. 41st street, arrived home Monday night from an extended tour of Europe.

* * *

Lawton Dix of the Hearst Newspapers, returned last week on the Majestic from a several weeks' stay in Sweden and Norway.

* * *

Norman Wilson, Vice-President of the Hammermill Paper Company, returned on the Majestic last week from a trip to Europe. He visited German and Scandinavian countries.

* * *

The Import Committee will meet on Friday at the offices of the American Paper and Pulp Association to continue formulation of its plans for the import campaign which it has in hand.

* * *

Walter W. Case of the Richardson-Case Paper Company of Sacramento, Cal., which was recently sold, accompanied by his wife and daughter, is visiting the leading Eastern cities. They are at present stopping at Hotel Woodstock. On July 25 they will leave New York for San Francisco by the Panama Canal. Mr. Case expects to engage in the wholesale paper business in San Francisco.

* * *

The Joint Committee of the American Wood Pulp Importers, the Technical Association of the Pulp and Paper Industry and the American Paper and Pulp Association has approved the applications of Elbert G. Milham, chief chemist of the Bryant Paper Company, Kalamazoo, Mich., Edgar Desgogne Dit Durant, assistant chemist of the Bay Sulphite Company, Ltd., 45 Port Alfred, Que., as chemists for sampling and testing wood pulp.

* * *

Harry W. Alexander, until recently Chairman of the Finance Committee of Acher Theatres Corporation, Chicago, a part of the Metro-Goldwyn syndicate, has been elected Vice President of Beatty & Co., insurance adjusters and brokers, New York. Mr. Alexander is well known in manufacturing and public utility management circles having been with the *American Writing Paper Company*, Holyoke, as Assistant to President, and with the Society for Electrical Development, New York, as Sales and Publicity Director. Mr. Alexander will continue to serve as Treasurer and Director of the Esda Manufacturing Company, and with the Sherwin Cody Business Ability Institute.

* * *

The Texas Gulf Sulphur Company reports for the quarter ended June 30, 1924, net earnings of $1,181,773 after Federal taxes and depreciation equal to $1.86 a share on its $6,500,000 capital stock of $10 par value. The net earnings for the preceding quarter were $1,155,869, or $1.82 a share, and for the quarter ended June 30, 1923, were $1,190,190, or $1.87 a share. The surplus, including depletion reserve for the quarter, totaled $70,523, against $44,619 for the previous quarter and $237,690 for the corresponding quarter last year. The net earnings for the six months ended June 30 totaled $2,337,642, or $3.68 a share, as compared with net earnings of $2,292,256 for the first six months last year. The surplus for the six months was $115,142, against $546,006 for the first six months of 1923, making the total surplus as of June 30, $7,170,909, against $6,595,812 for that date in 1923. During the last quarter, in addition to paying $1,111,250 dividends and increasing its surplus by $70,523, the company added $194,355 to its reserves (including reserve for depreciation and for accrued unpaid Federal taxes), making the total of these reserves $4,512,560 at June 30, 1924.

Charles Walmsley & Co. (CANADA) LIMITED

SALES OFFICE
Drummond Bldg.
MONTREAL

Main Office & Works
Longueuil, Que.
CANADA

232" Walmsley Paper Machine recently brought into production in the Belgo-Canadian Paper Company's Mill at Shawinigan Falls, Que.

Producing 85-90 tons of news print per day at speeds of 750-800 feet per minute

Editorial

Vol. LXXIX New York, July 24, 1924 No. 4

HENRY J. BERGER, Editor

SIGNS POINT TO IMPROVEMENT

Midsummer dullness is this year greatly accentuated by a continuation of the severe business reaction which began nearly a year age, according to the First National Bank of Boston. Business forecasters generally pronounce fundamental conditions sound and predict an increase of activity during the fall. This opinion is based on a plethora of money available at low rates of interest; resonable stocks of merchandise on hand; sharply curtailed production adjusted to orders in sight; a most conservative program of ordering goods for immediate needs only, evidenced by low records of unfilled orders; and finally, the existence of heavy purchasing ability of consumers. These all are factors contributing to soundness and also are stimulants to better business likely to become effective in the near future.

Money, not needed for the moment in business, is seeking outlets for investment, as witness the feverish activity in bonds at rising prices. The cotton textile industry is still in the doldrums, operating at about half capacity with no signs of improvement yet discernible. Woolen manufacturing is dull and curtailment increasing. The same may be said of the shoe factories. The building construction boom has apparently passed its peak and costs seem to be entering a period of slow decline, although projects under way plus work urgently needed are likely to keep fully employed for another year the limited number of available trained workmen. This last item is an important factor in the prediction of a resumption of better trade conditions during the fall and winter.

The sharp increase in wheat prices brings to the surface another feature in the situation, which, in the opinion of many, has been mainly responsible for the uncertainty and recessions in business, namely, the maladjustment or relatively heavy impairment of the agricultural workers' purchasing power. Since 1921, this handicap has been steadily reduced. The figures seem to show that the exchange value of the farmer's products has risen from below 50 per cent to nearly 80 per cent of the 1913 normal, and is gaining rapidly.

The usual summer dullness in the paper and pulp industry is accentuated by the depression in general business. Production of all grades of paper in June was slightly below the previous month and 30 per cent under that of May, 1923. Shipments during the first six months of this year have been normal, as have also stocks in the hands of consumers and distributors. Production nd shipments of news print in the United States for the first six months of this year were approximately the same as for the corresponding period in 1923, but stocks on hand June 1 were about 65 per cent higher than June of last year. As a result of this weak statistical position, news print prices were recently reduced $2.00 a ton.

Advertising, which is an important barometer for the paper business, has been maintained at a high volume. For the first six months of 1924 magazine advertising was 8 per cent higher than for the first half of 1923 and 33 per cent higher than for the first half of 1922. This apparently indicates a continuous satisfactory consumption of book and writing papers. Fine papers are holding steady, with a fair demand. Coarse paper showed improvement in the last week. General conditions in the mechanical pulp market remain unchanged, while chemical pulp prices are firm, and a few substantial orders are being placed. The prevailing sentiment in the trade is that satisfactory adjustments are being made, and indications are that there will be a marked improvement in the industry in the latter part of the year.

Barring a shrinkage in imports, reflecting the dullness of domestic markets, changes in current foreign trade are of no great meaning. Centering of attention on home politics has lessened interest for the time being in European problems. While progress towards adjustment is indicated and the foreign exchange markets are more stable, exporters are awaiting more definite events for material influence on sales. The feature of May foreign trade returns was a decrease of nearly $20,000,000 in imports, compared with the preceding month, and $69,598,000 from the corresponding period last year. Exports declined about $18,590,000 from April, but exceeded those of May 1923 by approximately twice that figure. For eleven months of the fiscal year ended June 30, exports passed the $4,000,000,000 mark for the first time since 1920-1921, and exceeded imports by $723,000,000 against an exports excess of $176,000,000 for the corresponding period of 1922-1923. Net gold imports in the same period reached $381,900,000. In export exhibits by groups, total grains and grains manufactures show a decrease of 40 per cent from the previous eleven months' total, while for May the decrease from the corresponding month last year was 57 per cent.

FOREIGN PAPER PRICES

The monthly average import price of news print for May, according to figures which have just been issued by the Department of Commerce at Washington and which are the latest figures available, declined slightly as compared with April, the figures being 3.76 cents per pound for the former month and 3.84 cents per pound for the latter. The average monthly import price for May of last year was 3.74 cents per pound. The average monthly import price of pulpwood, however, showed some increase for May; the figures for the month being $10.19 per cord as compared $9.51 per cord for April and $9.48 per cord for May of the preceding year.

The average monthly import price of mechanical pulp for May also showed a considerable increase, the figures for the month being $35.37 per ton as compared with $27.85 per ton for April and $34.93 for May of last year.

The monthly average import price of unbleached sulphite pulp for May was $51.21 per ton as compared with $50.90 per ton for April and $60.70 per ton for May of the year preceding.

The monthly average import price of bleached sulphite pulp for May was $76.92 per ton as compared with $77 per ton for April and $94.08 per ton for May of 1923.

The monthly average import price of sulphate pulp for May was $59.05 per ton as compared with $62.06 per ton for April and $66.68 per ton for May of the preceding year.

The monthly average export price of news print for May was 4.9 cents per pound as compared with 5 cents per pound for April and 5.3 cents per pound for May of the preceding year.

Let George Do It!

By O. M. PORTER, Asst. Sec. of the American Paper and Pulp Association.

Forest fire sweeping Northern Idaho and Western Montana! Hundreds of acres devasted by uncontrolled fires in Maine! These statements are typical of many a headline in the daily papers of the country. Such fires mean little or nothing to the average reader, other than a news item of more or less passing interest. The result of these fires, however, in many cases, is absolute zero in forest production for many years to come.

Fires, destructive logging and the depredations of insects and fungi have rendered 81,000,000 acres of forest land in the United States absolutely unproductive. These lands are *not* producing the pulpwood of tomorrow, nor will they ever produce pulpwood or saw timber unless protected from fire. They represent an absolute economic loss, much of which, however, could have been prevented by adequate fire prevention and intelligent forest management.

We are not crying "Wolf, Wolf" when there is no wolf, but the day is surely coming when the pulp and paper industry of the United States will *have* to practice forest protection and forest management.

It is all very well to talk of book and news print from Southern pines, and of the forest resources of the Pacific Northwest and Alaska, but the fact remains that the bulk of our paper consumption, as well as of our productive forest lands is here in the East. Fortunately, there is sufficient potential forest land East of the Mississippi and North of the Ohio to supply the entire pulpwood needs of the United States in perpetuity were they protected from fire and brought to a stage of reasonable production.

How can this be done? What is the paper industry doing to help itself? How is woods operations progress being recorded? Where can data be obtained on new methods and new machinery, information as to practical forest management, methods of fire prevention and suppression, etc. Where is this being collected, interpreted and made available to the paper industry? The industry needs a woodlands section or a woodlands committee with sufficient foresight to appreciate the necessity of adequate fire prevention and productive forest management, as well as the necessity of a co-operative exchange of information along these lines. How long will we continue to "let George do it," and then how soon will we find the cupboard bare.

Europe is recovering. It has enormous potential consumptive capacity. Canada is using more and more of her natural resources. Where is the pulpwood of tomorrow to come from? It must be grown, and grown here in the United States. A woodlands committee or a woodlands section of the central organizations of the paper industry in the United States—the American Paper and Pulp Association—has a splendid opportunity to lead the industry in progressive development along these lines. How soon will it meet this challenge—grasp this opportunity?

Experiments on Fruit Wrapping Paper

WASHINGTON, D. C., July 21, 1924.—The Paper Laboratory of the Bureau of Chemistry has completed experiments on fruit and vegetable wrapping paper as the result of which tentative specifications have been drawn up and submitted to the paper trade.

F. P. Veitch, chief of the Laboratory states that the reaction from the trade to these specifications has been generally favorable. He pointed out, however, that these specifications are merely tentative and were drawn up to get the reaction of the trade. In this connection he has sent the following letter to paper manufacturers:

"For some time the Bureau of Chemistry has been studying fruit and vegetable wrapping paper with a view to determining the qualities needed in such papers and to draw specifications upon which reasonably satisfactory paper could be bought. In doing this work samples of fruit and vegetable paper were secured from the makers of such papers and also from the users. The users were asked to send samples representative of the papers that had been found to be satisfactory and also to send samples of papers which had proven unsatisfactory in their hands.

Some seventy samples of different makes and kinds of paper have been examined. The weight per ream, thickness, bursting strength tensile strength and tearing strength have been carefully determined and qualitative tests have been made to determine whether or not the papers contained ground wood pulp. Based on the results obtained the following specifications are suggested: Specifications for apple and citrus wraps: weights (basis, 24 x 36—500) 12 pounds; average bursting strength: shall be not less than 5 points. Specifications for tomato, cantalop and eggplant wraps: weight (basis, 24 x 36—500) 14 pounds average bursting strength; shall be not less than 5 points.

"We are sending these to you with the request that you consider them carefully and make any criticism or suggestions which your experience with such papers warrants. We would be glad to have you co-operate very fully with us and go as much into detail with your comments and criticisms as the situation demands. Any data that you care to send us will be greatly appreciated.

No Improvement in Wisconsin

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., July 22, 1924.—Paper Manufacturers are not agreed on business situation but none see much improvement. Orders are infrequent and those that are received require prompt attention, indicating that jobbers are carrying only "hand to mouth" stocks.

The stalemate in business is illustrated by the fact that the large wholesale houses which usually place their orders for catalog paper much earlier in the year, have not as yet shown much interest. A few companies have called for quotations but only a few small orders have been placed.

In spite of the slow business, manufacturers are optimistic and are preparing for a sudden and extensive improvement in business in a few weeks. Large quantities of pulpwood are being received in the valley. Most of it is from northern Minnesota and northern Wisconsin and wood from Canada is expected here shortly. Canadian wood, the most of which is for the Consolidated Water Power and Paper Company mills, is rafted across Lake Superior to Ashland where it is loaded on trains for transportation to the Wisconsin River and Fox River Valley paper mills.

Memorial to Zenas Crane

[FROM OUR REGULAR CORRESPONDENT.]

PITTSFIELD, Mass., July 22, 1924.—The Board of Aldermen have voted to appropriate $22,500 for the purchase of the park in front of the union station which Daniel England bought a year ago from the Berkshire Street Railway Company. This park is to be a memorial for the late Zenas Crane the former well known paper manufacturer of Dalton. Mr. Crane's donations to Pittsfield in past years included to the Boys Club, Museum of Natural History and Arts, Home for Aged Women, and the Father Mathews, Y. M. C. A. and others. The sum voted takes care of the park and its development will be by public subscription. The vote was unanimous. In this vote the common council concurred.

To Have Merchants' Conference in Holyoke

HOLYOKE, Mass., July 21, 1924.—The second Annual Mill and Merchant Conference of the Associate Mills,—the Crocker-McElwain Company and Chemical Paper Manufacturing Company—will be held at the Nonotuck Hotel, on Monday and Tuesday, September 22 and 23.

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W. G. MacNAUGHTON, Secretary

STEAM DISTRIBUTION, PUMPING EXTRAVAGANCE AND PRACTICAL SUGGESTIONS FOR IMPROVEMENT

By F. C. Farnsworth, Pres. Farnsworth Co.

Millions of pounds of steam and thousands of tons of coal are required daily to dry paper. With good equipment it requires 2½ pounds of steam to dry a pound of finished paper, or 1.2 pounds of steam to evaporate a pound of water from the paper. The importance of strict economy in the use of steam for drying paper is, therefore, paramount.

In certain large news paper mills more than 1,000,000 pounds of finished paper are made daily. It is fair to assume that just for drying purposes including the trim and broke, heating, etc., upwards of 3,000,000 pounds of steam is required daily in this mill. Most of the large mills are located in the Northern part of the North American continent. When the heating load is naturally heavy, especially in mills located in Northern Canada where coal costs upwards of $10 per ton.

In the past few years modern stokers, engines and boilers have been developed and considerable research work has been done to bring about the economic production of steam. Considering this fact and noting the wasteful conditions in the distribution of steam and how little thought is given to its proper use; one wonders whether engineers have been overlooking this very important factor in the manufacturing of paper. Improper distribution of steam applies not only to paper mills but to all types of manufacturing plants. But the greatest waste prevails in paper mills as they use greater volumes of steam for drying purposes.

The steam for drying paper in most instances is a by-product or exhaust steam from engines driving the paper machine. Therefore, the first step towards economy is the choice of the engine. The most modern engine should be used and just be a little too small to supply the exhaust steam requirements, so that a little live steam would be required to supply the make up; thus avoiding any waste of steam by an excess exhaust beyond the drying requirements. It is impossible to design an engine that will give the exhaust amount of power and at the same time the exact amount of exhaust required.

The ideal arrangement would be an electric driven paper machine, the generator driven by an engine just large enough to supply sufficient exhaust steam to dry all the paper and provide all the heating requirements.

To effect the greatest economy in the engine, the drying or the heating must naturally be done with the lowest possible back pressure on the engine; therefore, an exhaust line of ample size and capacity should be used to eliminate friction in carrying the steam away from the engine to the drying system or heating apparatus. Then little excess back pressure will prevail at the engine over that shown on the line at the entrance to the heating apparatus or paper-machine.

The steam used or wasted has a direct bearing on the cost of making paper. Economies can be effected at many points. The design of the paper machine determines how much water can be pressed or sucked out of the sheet before it enters the driers.

The consistency, weight, slowness, or freeness of the stock, the condition of the atmosphere, the condition of the felts and the press rolls, the type of ventilating system used and the type of drying system used, all have a direct bearing on the amount of steam consumed per pound of paper dried.

These conditions are largely governed by the papermaker and the operator. Therefore, they both have a distinct responsibility regarding the cost of steam used to dry the paper.

A drying system that will dry the maximum amount of paper with a minimum back pressure on the engine makes a definite saving every hour of ½ pound of steam per hp. for every pound drop in back pressure. Thus an engine of 100 hp. with back pressure reduced 10 pounds saves 500 pounds of steam per hour.

If reciprocating engines are used great care should be in the selection of proper size oil separators, of proper design, using double oil separators if necessary to absolutely insure elimination of oil; good traps to drain the separators are necessary, for, if the traps clog up, great quantities of oil would suddenly be carried over which might find its way back into the boilers.

Proper care of the oil separators between the engines and the driers is also an important factor. If oil shows in the driers, extra oil separators should be installed, in order to be absolutely sure that no oil gets into the driers. It might get through the driers and mix with the feed water and from there go into the boilers.

If a new oil separator is installed after the dryers have become coated with oil, the oil in the driers should be cut out with a solution of soda. Otherwise, while the new oil separator may be effective there will still be traces of oil in the feed water for months after its installation, because of the previously oil-coated driers.

When this oil coating is removed a reduction in the pressure required to dry will be noticeable immediately. Some engineers will contend that it is impossible to separate all the oil with oil separators on the exhaust line. It is a fact that some oil may pass the oil separators but if it does so the driers themselves will then become excellent oil separators. Of course, if the driers are acting as oil separators and become coated with oil it is possible that the balance of the oil will find its way into the condensate and there emulsify.

So that if large quantities are detected it is advisable to put what is known as grease extractors somewhere on the lines between the papermachine and the boilers. This condition, of course, is very bad, for oil coated driers require greater pressure to produce the same drying capacity.

The bleeder type turbine is becoming popular because it does not use oil. But as to the comparative efficiency between the two from the steam consumption standpoint, the conditions to handle have much to do with the advisibility of choosing one or the other.

Too much emphasis cannot be put on the importance of carefully selecting an engine. If a few more kilowatts per hour can be generated to supply the necessary exhaust steam for drying, the saving will be enormous.

It is a fact that about half of the engines in paper mills could be substituted with a new improved type that would pay dividends on the investments of anywhere from 50 per cent to 300 per cent per annum.

The Heating Load

Steam for heating the building is a point that gives the designer of a paper mill considerable thought. Shall he install an engine large enough to supply the exhaust steam for drying and heating requirements during the winter months, then run the same engine with an excess of exhaust steam going to atmosphere during the summer months? Or should he install an engine giving exhaust steam enough to just dry the paper and use live steam for heating purposes? The location of the paper mill would have much to do with his decision.

For illustration—A paper mill near the south with short winter; and a paper mill in Northern Canada with a long winter. The two conditions have to be dealt with separately, specially where the heating load is large.

Some paper mills have large quantities of steam going to the sulphite mill and no condensate returns from that source. It is therefore, necessary to heat up large quantities of make up water to feed into the boilers.

In such cases it is an excellent opportunity to put in an engine giving enough exhaust to heat this make up water and at the same time get some additional power, with only about 5 per cent loss in energy in passing the steam through the engine.

All condensate from paper machines or steam heated units should be returned direct into the boilers at the high temperature at which it leaves the heated apparatus and should never be mixed with make up water in hot wells, receiving tanks, or feed water heaters.

There are many large mills which have water power available that are carelessly using steam and not getting all of the power out of it that is available as it passes into the driers or heating units.

Very often these very mills are short of electric power at some seasons of the year. Therefore, every precaution should be taken to use all the energy from the steam before it passes to the drying or heating units. Either the power is a by-product of the steam or the steam is a by-product of the power. It is not advisable to waste either. It is an actual fact that some large mills have an excess of water power which they use to generate steam by electric steam generators and then they pass this live steam to heating and drying units without first passing it through an engine.

Proper Ventilation System Saves Coal

A hood over the paper machine is very important. In most machine rooms it will save a lot of fuel for the reason that it carries the water vapor direct from the paper machine. If no hood is used enormous quantities of steam are required to keep the machine room roof warm enough to keep it dry. The general atmospheric conditions fluctuate greatly and if the ventilation system is flexible, then great quantities of steam can be saved. In most instances, it will pay to have a careful inspection every few hours of the day and regulate the steam and the ventilating system accordingly, as the atmosphere conditions change.

In many mills the hot blast system of applying hot air over the driers is a paying investment. It helps to dry the paper and is especially useful where there is not sufficient drying capacity to dry all the paper that can be made. It further helps to ventilate the machine room. Careful consideration should be given this subject before installing a system, as it requires more steam to provide the hot air, and if there is not excess of exhaust steam available and live steam must be used to provide the hot air, then the cost of steam might affect the value of the hot blast system. Further, if the hot blast system is used, the condensate from the steam used for heating should be drained directly into the boiler, so that no sensible heat is lost in the handling of the condensate.

Good Boiler Room Equipment and Operation Saves Coal

The general boiler room equipment has a direct bearing on fuel economy. Where good water is available one can use a boiler that may be hard to clean and yet be more efficient, while if poor water has to be used and the boilers cleaned often, the boiler that might be somewhat less efficient, yet easy to clean, would be the most advisable.

Proper selection of stoker for the coal that is to be used is very advisable and analysis of the coal by experts is also economy, especially if large quantities are used.

Proper reading of the CO_2 is important to have. Proper draft control and furnace control, good flue cleaners, etc., careful examinations of the settings and walls, should be made, seeing that no air leaks take place, and regular inspection of the blow off valves, to insure that they are not leaking.

However, the most desirable of all is a good operating and combination engineer who will keep his records and work for efficiency using modern scientific methods in the boiler room. Instruments for recording the operation of all the boiler equipment are important. Records properly and regularly kept are very important, and, proper credit should be given the operator in order to encourage care and interest in the work. It would probably pay well to give a bonus for improvements and savings effected. The engineer is not given enough credit for the work and savings he effected. He may be directly responsible for a boiler plant valued at a million dollars and held responsible for results, that means profit or loss, yet many business men runing a million dollar business are so important that it is necessary to pass through several secretaries to get to them. The engineer who carries a great responsibility is not, in many instances looked up to with as much regard as he should be. A good general, practical engineer with good sound judgment is as important to a paper mill as the President, in many instances.

Scientific steam distribution economic handling of the condensate under pressure, metering, keeping records, and boiler feeding are all very important from a fuel saving standpoint. It is generally conceded that the practical man is needed to operate a paper mill, and that paper making is an art, yet the mill must have its scientific men and all mechanical equipment should be operated scientifically from every angle with a proper record of costs of maintenance, of new construction, and equipment with records of the life of all operating equipment, replacements, etc.

The Losses Occasioned by Air in Dryers and the Advantages of Removal

Air is a non-condensate gas and when mixed with steam in driers it retards the drying. However, if sufficient pressure on account of the air increases back pressure on the engine, which does not operate as smoothly under high back pressure and uses more steam.

A recent test was made using all the air that could be blown into the driers through a ¼" pipe with 150 pounds pressure on the air line, and while the same drying capacity was maintained, 25 per cent more steam pressure was required.

Stagnation of air in driers, necessitating pressing harder on one side of the press rolls to compensate for the sluggish drying.

Accumulation of air in driers is caused by poor circulation, due to the method of extracting the water from the driers. If water

accumulates in the driers and covers the end of the syphon pipe there is positively no way for the air to get out. The only way air can get out of the driers is to be blown out of the syphon pipes or buckets or through pet cocks in the ends of driers.

When starting up on Monday morning all the driers are full of air. Steam cannot enter the driers unless this air has some means of escape. If it is possible to open up the return header to atmosphere, the incoming steam will blow the air out of the driers through the syphon pipes, or buckets providing there are no short circuits.

Short circuits are caused by the natural tendency for the flow of any fluid or gas to follow the line of least resistance. Suppose that the return header is opened on the wet end and that there are no small traps on the syphon pipes, then the flow will naturally tend to go through the driers nearest to the wet end. If the syphon pipes are large it only needs full flow through a few driers to give it the full capacity of the return header. As soon as this condition occurs, the remaining driers are utterly unable to discharge the air, for, the flow of steam and air is confined to those nearest the outlet in the return header. The rest of the driers are completely stagnated and choked with air.

High circulation of steam through each and every drier is the logical way to remove air. This condition without danger of short circuit, can be achieved by dividing the driers into three or four groups, thus using the condensing effect of the wet paper passing over the wet end groups to pull the air, steam, and water from the dry end groups. In such cases the condensate is separated from the steam as it passes from one group of driers to the next. All the air is eventually banked in the first wet end drier, which is blown through its syphon pipe to the atmosphere or a small vacuum pump. When warming up the cold machine a large auxiliary valve in the wet end group can be opened to allow the rapid escape of all the air.

By this method all air can be removed from the largest paper machines in fifteen minutes or less, for, it is kept traveling through the dryers at a speed of ten thousand feet per minute toward the No. 1 drier where it is released.

If there is a small trap on each syphon pipe, air cannot escape from the driers. For, the operation of these small traps is dependent upon water having accumulated in the driers until it has covered the end of the syphon pipe. After a few moments the steam in the syphon pipe condenses and the water goes up to the trap and opens the trap allowing water only to travel through to the return header. As soon as the water falls away from the end of the syphon pipe, steam enters instantly and closes the trap.

Therefore, there is no chance for the escape of air where small traps are used on the syphon pipes.

It may be argued that the small trap has an air port or vent. If so, then one of two things happen; either this air port is large enough to carry away all the water from the driers and uncover the end of the syphon pipe permitting the steam to blow through with the air, or it is not large enough to achieve this result, and then, no air can get away from the drier, for, the syphon pipe is always submerged.

The supposed air port is soon clogged with dirt or oil and the usual corossion found in return lines. At best, the aperture is very small. Very often sediment, dirt or oil clogs the entire trap valve, and the drying capacity of the entire drier is out of commission.

It only takes about three driers out of commission on the average machine to kill 10 per cent of the drying capacity.

For years thousands of people have had the erroneous idea that the vacuum pump which is always used with these small traps was actually sucking in out of the driers. This is entirely wrong for when the trap valve seat is closed absolutely nothing is passing through it. When it is open, only water passes, NOT AIR.

In any case, if there were no vacuum pump at all, one pound of steam pressure in the drier would push the condensate out through the trap valve at a speed of several thousand feet per minute. But with the tiny aperture that is put in small trap valves the friction is so great that the vacuum pump may help in some cases to pull it through the valve aperture.

How much better is the condition for the evacuation of air from driers in high circulation systems where the syphon pipe is not restricted by a small trap and is free to blow continuously carrying with it absolutely all water and leaving the syphon pipe end free and uncovered, so that all air that gathers in the drier is carried out with the great volume of steam that passes through the driers and syphon pipes.

The same thing applies where buckets instead of syphon pipes are used except that the water is taken out intermittently.

In High Circulation Systems

The syphon pipe has a slight advantage over the bucket inasmuch as air is heavier than steam and tends to accumulate on the bottom of the drier. The syphon pipe is evacuating this air continuously whereas the bucket is full of water and unable to catch any air as it passes the bottom portion of the drier where most air accumulates. This water of course, is discharged almost instantly and the steam and air blows through for the remainder of the revolution.

Where NO Higher Circulation Prevails—The bucket is absolutely useless as an evacuator of air. For in such cases, the only agent being used to evacuate anything from the drier is gravity. And traps are used to drain a common return header. There is no difference in the pressure between the steam header and return hader, therefore, NO FLOW. If there is no flow and gravity is the evacuatory agent, it is easy to see that the air on the bottom of the driers has absolutely no chance to get out..

Losses by Water in Dryers—Advantages by Removal

The heat conductivity of water is ten times as slow as that of cast iron. Therefore, there is a distinct loss in drying capacity when water collects on the bottom of a drier.

If an inch of water has accumulated which it is sure to do if the syphon pipe is 1″ from the bottom, the rotation of the drier spreads this water over about 25 per cent of the surface. Therefore, 25 per cent of the drier is insulated from heat just as though asbestos were placed on the bottom. It is true that the water is hot but the paper is absorbing the heat at a greater speed than the steam can pass it through the water, therefore, there is a cold patch where the water is. This condition has been eliminated and the steam pressure reduced whenever small traps have been removed from the syphon pipes and a high circulation system installed. It is such a simple matter to let the steam blow out of the syphon pipes, and use it over again in driers on the wet end of the paper machine in a high circulation system where the pressure in a common return header is relieved so as to induce the steam to blow continuously and equally from all the syphon pipes.

If there is only one pound drop in pressure between the drier and the returned header, and the syphon pipe is 2″ from the bottom of the drier, the velocity of steam through the syphon is enough to suck absolutely all water from the bottom of the drier. It passes out as a fine mist. This can be easily tested by disconnecting a syphon pipe from the common return header and letting it blow to atmosphere or to a point with one pound less pressure than that in the steam header. *Note how much hotter the drier will be.* This system permits the use of very small syphon pipes for the evacuating velocity is high enough to enable all the water and some steam to be extracted from the largest of driers through a ½″ or smaller syphon pipe.

When all the driers are cleared by this method the temperature increases to such an extent that the pressure must be reduced or the paper will be burned. The result is that either more paper can be dried with the same steam pressure or the same amount of paper can be dried with less steam pressure. The value of HIGH CIRCULATION drying system, that will extract all the water and air, cannot be over-estimated.

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Advantages of Graduated Temperatures in Drying

The sudden application of heat to anything containing moisture is dangerous, unless the heat is applied gently, and gradually. The moisture turns into steam so rapidly that it will rupture the cohesiveness of the substance in its rapid expansion.

Paper is no exception to the rule and considerable improvement is made on the sheet when temperatures are graduated through the driers. As much as 2" shrinkage in the width of the sheet has been stopped through graduation.

With the old fashioned drying system the driers are just as hot at the wet end as they are at the dry end. The fibers on the outside of the sheet are dried hard, leaving the water in the center of the sheet so that as the sheet passes over the driers the water in the center of the sheet has to be pulled out through the dry fibers to the outside of the sheet, thus impairing the quality as well as the test and strength of the sheet.

To provide a condition where the graduation of temperature will increase as the paper enters the driers and decreases as it leaves the driers, the steam is sometimes taken in at the center of the paper machine and the temperatures graduated toward the wet end and towards the dry end. A new mill making probably the best news print in Canada is using the graduation both ways. This graduation of temperature is very essential when making fine grades of paper, especially graduation on the wet end to bring the temperature up gradually. Graduated temperatures will produce a stronger sheet of paper for the reason that the fibers are not scorched or seared by high temperature at the wet end. Not only paper but any product is better if it is dried slowly and gradually.

A better finish on the sheet is very noticeable. Graduation can only be accomplished by dividing the dryers into groups, as done in High Circulation Systems. Many factors have to be considered in the determining of the best grouping of the difference sections. Several mills have attempted to install a High Circulation System without consultation with, or employment of experienced engineers, and have made great failures, for the simple reasons that they did not understand that when passing steam from one section to the other velocity gets so high that separation of water is impossible without proper controlled water seal differential regulators to slow down the speed and control the water separation.

Without knowledge of the way to handle this method which has so much merit, water will be carried into the condenser section and retarded the drying rather than improve it.

Method of Obtaining High Circulation

In a high circulation drying system to avoid short circuits make each system pipe blow equally, the driers are divided into groups or sections. The steam enters the dry end section and passes out to the return header. This return header becomes the steam header for the rest of the group of driers. But of course, the water is separated off by the proper separators under control for reducing the speed through the separators, so that only dry steam enters these driers. The steam passes continuously in this fashion from one group to the next. Each group contains fewer driers, as the wet end is approached. The last group being No. 1 drier wet end. This drier is a surface condenser by reason of wet paper going over the outside. It gets its steam from the return header of the group preceding. This group for exactly similar reasons is also a surface condenser and gets its steam from the return header of the preceding group. and so on, to the dry end. Therefore, it is perfectly obvious that the steam is traveling at a high speed from the dry end through the driers and syphon pipes, to the wet end, separating off the water between each group of driers, and carrying the air to the No. 1 wet end drier, which is the air separator.

There is naturally a drop in pressure between each group of driers for the syphon pipes cannot blow enough steam to equalize. This drop in pressure produces graduated temperatures which are a great advantagge. To prevent fluctuation of these temperatures a water sealed differential regulator between each group of drier's supplies sufficient make up steam to maintain a constant difference in pressure between the groups. The condensate from each separator and differential regulator as it moves towards the wet end maintains the water scale between each section or group of driers. It drains by gravity into a tank and is held under pressure thus retaining the original heat. As fast as the tank fills it automatically meters and discharges, the condensate (still under pressure) to a boiler feeding system. By this means the condensate leaves the driers as soon as formed and is returned directly into the boilers at practically the same temperature as the steam carried into the driers.

What High Circulation Produces—Advantages of High Circulation Systems

High circulation systems give complete and continuous removal of all air and water from driers. Uniform graduation of temperatures is then possible by reason of the ease of control which only becomes possible through the high circulation. Less pressure is required to dry, and there is no variation of temperature across the face of the driers.

The maximum heat transfer through the shell of the driers is obtainable. Uniform peripheral temperature is maintained Less pressure is required to dry and less weight on drier bearings. With these conditions existing it is less difficult to maintain a uniform moisture content. There is less shrinkage, less cockels, less broker, better finish, greater strength of sheet all of which leads inevitably to greater production.

The value of uniform moisture content cannot be over estimated for, if temperatures are fluctuating the back tender will lean to the dry side to be safe. One or two per cent more moisture content on a big tonnage easily means a ton more production per day. Temperature control devices work much more sensitively where the variation of temperatures are minimized due to the complete elimination of water and air from the driers. The birth of temperature control devices would have been unheard of had the present day knowledge and systems been available for the complete removal of water and air.

A mill using a poor drying system will find it hard to compete with a steam cost and production with a mill that has a good one.

Hot Water is Valuable—Thirty-four pounds of water evaporated in boilers will make one H. P. A pound of coal will evaporate about eight pounds of water from and at 212° more or less, depending on the efficiency of the boiler. Only a percentage of the heat from the fuel is actually absorbed by the water, the rest goes into gases and ashes. Preheating of the water before it enters the boiler is desirable. There are many styles of heaters for utilizing the exhaust steam for preheating the water. But the really efficient steam plant should have no exhaust steam available, from the paper machine and beating system. It has been explained how detrimental it is to have water in driers, for steam will not penetrate through it fast enough to make a quick transfer of heat through the shell of the driers, for maximum drying. Yet this same condensate is near the temperature of steam and if it be kept under pressure will retain its heat.

Should the pressure at any time drop through faulty handling of this condensate, a definite drop in temperature takes place and for every 10 degrees drop in temperature there is a waste equivalent to 1 per cent of the fuel used to dry.

To illustrate in a plant making 100 tons of board per day it takes about 3 pounds of steam per pound of paper or 500,000 pounds of steam in 24 hours. If the steam pressure were 40 pounds the temperature of the condensate would be 280 degrees. Let us assume the machine to be equipped with small traps on each syphon pipe with a vacuum pump pulling a vacuum of 10" on a common return header. The temperature of the water leaving the vacuum pump will be about 180° for that is the temperature of condensate under 10" vacuum, showing a cooling down process in the vacuum pump,

creating a drop in temperature of 100 degrees, which is a loss of 100 B. T. U's. If 600,000 pounds of steam were used daily, 600,000 times 100. Or 60,000,000 B. T. U's are, therefore, being wasted daily. All of this waste would be saved with a closed system which would keep the condensate moving under pressure and at high temperature until it was delivered into the boilers.

Board mills using high pressure steam for drying in order to obtain maximum tonnage from a deficiency of driers, are the mills where this kind of waste is usually most prevalent. Of course, other mills have the same proportionate waste if they are drying with steam above atmospheric pressure and fail to use a system that will hold this condensate under pressure and keep it under pressure until it is delivered into the boilers.

A condensate drainage and pumping system must consist of pumps that will handle high temperature water. Contrifugal or piston pumps will not handle it much above 212°, for the reason that it is not usually convenient to obtain enough static head pressure, with a closed pressure drainage system. The condensate drains by gravity through substantially large pipes into a tank equalized in pressure with the heated apparatus. The condensate rises until it trips. A valve, which admits high boiler pressure steam direct to the top of the water in the tank. The increased pressure momentarily checks all inflow from the heated apparatus, and condensate is quickly discharged through small lines to a common trunk line. Then the boiler pressure is automatically released into the heated apparatus being drained and the L. P. condensate again flows into the tank. All the condensate from the various heated units in the plant is drained and pumped in similar fashion into this common trunk line which leads to the wastes in Duplex tanks placed above the boiler. One of these tanks is always receiving while the other is discharging by this means providing a continuous flow of condensate from the heated units directly into the boilers. The tanks are vented into one of the heated units directly into the boiler. The tanks are vented into one of the heated units, being drained thus, at no time is the condensate allowed to drop to a pressure below that of the heating units it comes from.

The advantage of handling condensate by tanks—is that as soon as the condensate forms it, is moved away from the heated units and into the boilers, through small pipes at high speed and under pressure reducing radiation losses to an absolute minimum and conserving the heat to the utmost.

The cost of operation is minimized absolutely, no steam gets outside of the closed loop. Steam is taken from the boiler and condensate is returned without any heat loss except radiation.

Maintenance costs are negligible for no oil is necessary and there are no stuffing boxes or packings and the operation is entirely automatic in every respect.

Metering Condensate

Accurate metering of the condensate while under pressure and at high temperature is very important and is a simple matter where tanks are employed to handle it, and is best way of finding steam costs, for a counter and recording thermometer records how many times the tanks have discharged and the temperature during any given period of time.

Metering, if done at all, must be done with apparatus that does not require too much time, watching or labor to operate it, otherwise interest is lost and metering is discarded. The cost of drying paper is such a big item in its manufacture that records should at all times be kept very carefully. No up-to-date mill can afford to neglect the steam cost records if they expect to meet competition.

If the metering records show an increased steam consumption, the felts may need changing, the press rolls need more pressure, the stock may be slow, the suction poor or the atmospheric condition in the machine room may need modifying.

Unless the metering records were kept and used intelligently losses go on indefinitely unknown. Metering would show the number of breaks during the day, the time, and the duration of each break.

If all the make up water plus the condensate were fed into the boiler through the Boiler Feeder, the total water fed into the boiler would be metered in the same way.

Where tanks are used to handle the condensate from a high circulation drying system and from all the heating units then the vacuum pumps, traps, feed water heaters, receiving tanks, hot wells, and boiler feed pumps can be eliminated, resulting in big saving of fuel.

Thousands of feet of piping are also eliminated and the consequent saving in radiation cannot be ignored, inasmuch as for every 100 sq. ft. of radiating surfaces it takes 1 hp. of steam per hour to keep it heated, and for comparison sake 100 lineal feet of 2" pipe equals about 100 sq. ft. or 1 hp. of steam per hour is required and 1 hp. costs about 3 pounds of coal per hour. Think this all over when you see a lot of excess equipment and piping that could be eliminated.

There are too many men ready to say that they know steam and there are too many others today ready to experiment with men who have not had the experience. It is well worth considering the proposals of specialists. Inexperienced men get ideas and jump at them without giving them sufficient thought and the consequences are a loss of fuel by bad mistakes and very often loss of production because of poor piping and drying system.

Some mills can use economizers to advantage. However, there are a number of the most modern boiler plants that are not using economizers because they feel that the first cost, depreciation, maintenance cost, etc., compared with the results produced does not warrant the expense. Take good advice in this matter. With some types of boilers the use of economizers is very advisable.

If a plant has large quantities of high temperature condensate and very little make up water and the flue gases are comparatively low, then the economizer is not advisable, especially if a good system of handling the high temperature condensate into the boilers directly is used, so that the condensate is held under pressure and at a high temperature. Some plants have condensate at such high temperatures that the small increase that it would get in the economizer would not warrant passing it through. That is, if it can be put into the boilers at such high temperatures that if the economizers were used they would heat it but very little higher to get near the flue gas temperature. While in other plants, there are large volumes of cold water which it is advisable to pass through the economizer, especially where the boiler has high flue gas temperature.

In plants where there is fifty per cent high temperature condensate and the balance cold water, then it is advisable to use economizers only of size sufficient to heat the make up water and let the condensate go direct. In other plants where high flue gas temperatures prevail, it maybe advisable to use a boiler feeding system and handle all the high temperature condensate from the paper machine and heating system as well as the makeup water through the economizer and thus obtain a maximum efficiency by entering the economizer with high temperature water and be able to preheat it still higher with the high temperature flue gases.

Piping covering plays an important part in fuel economy, all pipes should be covered, even the heads of the dryers, and the steam and return headers above paper machines.

Pipe covering can be overdone, good quality covering should not be more than 1½" thick on any service, as beyond that thickness the cost of the covering compared to the good it will do will show a loss on the investment if the life of the steam or return pipes, or equipment covered is taken into consideration.

Crane Mills Closed for Two Weeks

[FROM OUR REGULAR CORRESPONDENT.]

DALTON, Mass., July 22, 1924.—The Crane Bay State Mill is shut down for two weeks. The Old Berkshire Mills which closed down the 12th for two weeks are expected to open again the 26th.

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THE SOUTHERN FORESTS AND THE PULP AND PAPER INDUSTRY*

By John D. Rue[1] and Sidney D. Wells[2]

From one end of the continent to the other the question arises, "How are we to maintain an adequate supply of timber?" The pulp and paper industry is among the most insistent of those seeking an answer to this question.

In 1870, only a little over 50 years ago, the amount of wood used as a raw material for paper was insignificant. The value of the product from the eight establishments then in existence was valued in the United States Census reports at only $172,350. Today, 83 per cent of our paper has its origin in the forests. It is estimated that in 1922 over 9,000,000 cords of wood were used in the manufacture of the more than 8,000,000 tons of paper consumed in the United States.

The manufacture of this product has been centered chiefly in the Northeast, in an area bounded on the west by the Mississippi River and on the south by Kentucky and the Virginias. In this area are located the most important stands of spruce, fir and hemlock found east of the Rocky Mountains. These three species constitute about 76 per cent of the pulpwood used in this country. Extensive stands of these species are also found in the Pacific Coast states, but are so far removed from the markets for paper that they have only been used in the manufacture of products for local consumption.

The stands of these species in the southern states are negligible from the standpoint of paper manufacture. The south does contain, however, large supplies of species which may be considered pulpwood, of which the yellow pines constitute by far the largest proportion. Among other pulpwood species which occur in important quantities are aspen, cottonwood, birch, beech, maple, yellow poplar, and red, black and tupelo gum. The stand of the hardwood species is estimated at 335,000,000 cords, or nearly 50 per cent more than the total stand of spruce, fir and hemlock in the northeast. The stand of yellow pine, estimated at 940,000,000 cords, is over four times that of the spruce, fir and hemlock in the northeast.

Capable of Rapid Reproduction

Not only is the south in the possession of large stands of pulpwood species, but it is capable of reproducing them rapidly. Twenty years are sufficient to produce trees of pulpwood size, which in the case of shortleaf pine on fully stocked land, will yield, according to Mr. Forbes, Director of the Southern Forest Experiment Station, thirty-eight and one-half cords per acre, or an average of nearly two cords per acre per year. Northern spruce requires from 40 to 80 years to reach pulpwood size and represents an average yield per acre of only about one-half cord per year. On the basis of these estimates the area required to maintain on the sustained yield basis a mill using spruce, will be four times that required by a mill using a similar quantity of shortleaf pine.

The climatic conditions of the south are favorable, not only to rapid growth but to uninterrupted harvesting of the wood. There is no need to pile up in storage at the mill 50,000 to 100,000 cords during portions of the year as it is necessary to do at many mills in colder climates. Decay losses incident to storage may consequently be reduced to a minimum and carrying charges largely eliminated.

With all these advantages in favor of southern forests as a source of supply, coupled with their nearness to the paper markets, only 440,000 cords of pulpwood, not including slabs and waste, were cut in this region in 1920. This cut consisted principally of yellow pine, which was for the most part pulped by the sulphate process and the product used in the manufacture of fiber container boards and kraft wrapping papers. It may be of interest to consider some of the reasons why the south has taken such a limited part in the development of the pulp and paper industry and then to turn our attention to the possibilities which southern forests have of becoming a vital factor in the industry of the future.

There are four grades of paper involving large consumption of wood which are so different from each other in their properties and in the quality of pulps used in their manufacture that they may well be considered individually; they are, news print, board, wrapping, and book.

Large Consumption of News Print

News print, composed wholly of wood pulp, constitutes 31 per cent of the entire consumption of this country. Seventy-five to 80 per cent of news print is made by the mechanical process. The wood is ground and used without chemical treatment. The color and impurities of the wood persist in the pulp. Spruce, more than any other wood, combines excellent color and low pitch content, with ease of grinding to a pulp of the desired degree of strength and fineness. The firs and western hemlock have been used to only a limited extent for this purpose. The southern pines, because of the depth of their color and of their relatively high pitch content, are not well adapted to the manufacture of mechanical pulp, and there seems little probability of their being used for this purpose. The hardwoods, such as are found in the south, while free from pitch and in many cases possessing the desired color, yield pulps which are too weak and too fine fibered to be used in news print.

New Process Being Developed

A method that would make possible the separation of the fibers without the severe mechanical action of the customary grindstone, and also without reduction in yield or discoloration of the fiber, would make available these potential resources to the news print manufacturers provided the cost of the product would not exceed the cost of mechanical pulp. Such a process is being developed at the Forest Products Laboratory, and it is anticipated that it will be possible to manufacture from this product a paper which will meet the demands of the newspaper publishers and at a price, when manufactured locally, that will compete successfully in the southern market with standard news print. Further investigations, including a commercial demonstration, will be required before the product can be considered assured. The successful development, from such woods as the gums, cottonwood, and aspen, of a paper of this character would make it possible for the south to supply its own news print. How far such a product from the southern forests could compete in northern markets would depend to a large degree upon the extent to which mills now operating can adapt their processes to the little-used species still available to them.

In addition to mechanical pulp news print requires from 20 to 25 per cent of unbleached sulphite pulp to give the paper its requisite strength. Without sulphite the sheet cannot be made on our modern machines, nor could it be used on the printing presses. The necessity of producing a cheap product precludes the possibility of bleaching the pulp. The suphite process is the only chemical process now practiced which yields a pulp of a sufficiently light color to be used in news print without bleaching. The chemicals used in the process, however, do not dissolve the pitch found in such resinous woods as the pines. Spruce again is best adapted to this process, although balsam fir and hemlock find readier application than they do in the mechanical process. The hardwoods, while fairly easily pulped by the sulphite process, yield a product composed of very short fibers and, hence, without the requisite strength-giving value for news

*Presented at the organization meeting of the Southern Division of the American Pulp and Paper Mill Superintendents' Association, New Orleans, La.

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print. Pulps made by the process referred to above, however, do not require the use of sulphite to obtain the required strength.

Consumption of Fiber Board

The consumption of fiber board in the United States nearly equals that of news print. The term board includes various grades. Some are made wholly, or in large part, from old paper. The stronger grades, especially those used for the manufacture of fiber shipping containers, require the addition of chemical pulp to give them the requisite strength and wearing qualities. For this purpose extensive use is made of kraft pulp manufactured by the sulphate process from coniferous woods. *As a source of this grade of pulp, the southern pines cannot be excelled.* The sulphate process, being alkaline in character, readily dissolves the pitch and yields from the pines a pulp which, although dark brown in color, possesses remarkable strength and wearing qualities. Its fibers are longer and broader than the pulps obtained by this process from the northern conifers and serve as an excellent strength-giving stock in high test container board.

Wrapping papers made from southern pine pulps have a coarseness of texture, or "wildness," not characteristic of the northern product. "Wildness" in well-made papers is no indication, however, of a lack of strength and wearing quality, although it may add somewhat to the difficulties of the salesman who brings the product into competition with the finer textured papers of the north. The experience of the Forest Products Laboratory indicates that it is possible to exercise sufficient care in the manufacturing processes to produce a paper which combines both strength and fineness of texture. Within the last years reports have appeared of the installation or construction of six Fourdrinier machines to be installed in southern mills. When these machines are in operation the manufacturing capacity for kraft paper of mills operating on the southern yellow pines will be practically doubled.

Fiber boards and wrapping paper are intimately associated with the merchandizing of goods. Any marked increase in the industrial development of the country will unquestionably be reflected in an increased demand for these products. The southern pine forests with their cheap pulpwood, the excellent suitability of their wood for the sulphate process, and their nearness to the paper markets, will without doubt be called upon to supply in ever increasing proportion the wood required to meet the demand made by expansion in this phase of the industry. The rapid depletion of northern pulpwood species will do much toward focusing attention upon the potential possibilities of these sources of supply in the south.

Book Paper Consumption

Book paper, which is dependent upon the forests for 75 per cent of its raw material, constitutes over 12 per cent of the paper consumed in the United States. It has not been until very recently, however, that this grade of paper has been included among the products of the southern forests.

Normally the wood pulp used in book paper has consisted of about equal parts of bleached sulphite and bleached soda pulps. The bleached soda pulp is made from aspen and limited quantities of other broad-leaf woods. The production of this grade of pulp in 1922 did not exceed 384,000 tons. There was but little competition in other branches of the industry for the wood used in its manufacture. The production of bleached sulphite pulp, including pulp prepared for bleaching at paper mills, amounted in the same year to 537,000 tons, for which product there were required over 1,000,000 cords of wood. The spruce, fir and hemlock which constituted almost the entire pulpwood supply for this product were in great demand also for mechanical pulp and news grade sulphite.

Under these circumstances the southern forests, with its extensive stand of cheap pulpwood, consisting of both conifers and hardwoods, offers attractive possibilities as the basis for a book paper industry provided advantage is taken of the knowledge already available as to methods of pulping and bleaching. To prepare from the unbleached pulp a product suitable for book paper requires especial care in the bleaching process. The bleached product at its best does not equal the northern product in brilliance of color and, for this reason, probably could not now compete with it in northern markets. The manufacturer, however, who operates his own paper mill will find little difficulty in making from his own pulp papers which are entirely satisfactory to the trade. Already the commercial production of book paper, based on the use of bleached pine pulp, is being successfully carried on upon a scale sufficiently extensive to indicate that it is likely to become an important branch of the paper industry in the south. The pulping, because of the resinous character of the pines, is not done by the sulphite process. This process, as operated for the production of kraft pulp, yields a product which it is difficult to bleach. A product of much better bleaching properties is, however, obtained by the introduction of slight changes in the method of operation and by the exercise of more accurate control over the manufacturing condition. Further intensive investigations, which will doubtless develop many improvements in the quality of the product and in the economy of operation and should help to stimulate activity in the application of the pines to the manufacture of this grade of paper, have been under investigation at the Forest Products Laboratory for several years with satisfactory results. Commercial interests have co-operated with the laboratory and have also studied the subject independently.

Difficulties Encountered

Attention might be called to difficulties which have been met with in the manufacture of pulp and paper in the south and which have no connection with the suitability of the woods used. These difficulties have been concerned primarily with problems of management and of labor. The pulp and paper mill, frequently merely a secondary consideration with a lumber company, has at times not been held to the continuity of operation that such costly establishments require. The quality of labor that has been used has not always been adequate for operations requiring considerable skill. These difficulties are, however, rapidly being overcome as the importance of the industry to the region becomes more thoroughly recognized. The elimination of these difficulties will greatly assist in the development of those processes, such as the manufacture of book paper, which require skill and care in both operation and management.

The southern forests have, therefore, many advantages which should make them an important factor in the pulp and paper industry. They contain large stands of pulpwood species, which can be rapidly reproduced on relatively small areas and can be harvested continuously throughout the year. They are favorably located with respect to markets for paper and paper products.

The pines are well suited to the manufacture of fiber container board and kraft wrapping paper and may be expected to supply increasing proportions of the country's need for these products. They are already being used in the manufacture of book paper and the outlook is bright for a marked development in this branch of the industry. They are not suited to the manufacture of news print by present processes.

The hardwoods are limited in their application chiefly to the supply of soda pulp or its equivalent as used in book paper. If the favorable results so far obtained in the investigations under way at the Forest Products Laboratory can be substantiated on a commercial scale, these woods will also find application to the manufacture of a paper that could be used for standard news print with the desired printing qualities and low cost of manufacture.

H. A. Moses Gives Building to Westport

[FROM OUR REGULAR CORRESPONDENT.]

WORONOCO, Mass., July 22, 1924.—Horace A. Moses, President of the Woronoco Paper Company of Woronoco and Mittineague has given to Westport, N. Y., a fine Junior Achievement building making a very attractive addition to the town. The building will be completed this summer.

TECHNICAL SECTION, PAGE 34

PAPER DRYING AND EFFECT ON SIZING QUALITY

We have recently encountered some difficulty in the matter of sizing a very heavy Fourdrinier sheet. We have used varying amounts of rosin size and alum, and have shifted the machine operating conditions considerably, but, as far as I can see, the greatest material benefit from the many changes made was in the drier temperature.

For example, it was found that with a drier temperature approaching 217 to 219 degrees F., the best sizing results were obtained. Unfortunately, the setup of our machine at the present time is such that this maximum temperature is attained only on the driers nearest the dry end of the machine. Our drier curve, therefore, increases rapidly from the wet end of the machine to the dry end, as the drier temperatures on the wet end are in the neighborhood of 185 degrees F. We realize, of course, that this condition is not perfect, and that for the best results we should follow more closely Klemm's theory that the highest drier temperature should be at a point in the drier train where the paper contains an appreciable amount of moisture.

The driers on this machine are 24 in number, and I am wondering whether you can suggest the best form of drier temperature curve to follow to obtain a maximum sizing effect and a minimum burning effect.

It is my view that perhaps the driers five, six, seven and eight, from the wet end, should have the maximum temperature, and, from that point on, decrease slightly in temperature until at the last drier the temperature would be in the neighborhood of about 200 to 206 or 207 degrees F.

I would appreciate any advice that you can give me in this matter.

MEMBER.

The question you raise is a very interesting one, especially as it has a bearing both on paper drying and sizing.

As you know, the tendency of engineers has been to think only of the efficient application of steam used in drying. One result has been the sectionalizing of the drier train, and passing the steam from the dry to the wet and where the colder and wetter paper results in a group of condenser driers. With a vacuum pump on the discharge, these are frequently below atmospheric pressure.

Even without division of the driers into sections, E. P. Gleason and Maurice Nielson have found that there is naturally a graduation of temperature from the wet to the dry end, which may perhaps be due to mechanical conditions in the steam distributing system. It may be that a virtue has been made of necessity, but most papermakers hold that a graduated temperature in drying results in less trouble from shrinkage, cockling and curling, especially where the stock has been somewhat hydrated. Certainly, for drying a porous, free sheet—if the greatest quantity were wanted to be dried on the least equipment—the highest temperature and the largest amount of heat should be applied to the wet sheet, with a reduction in the temperature as the sheet became dry. From the standpoint of the most efficient use of steam, however, it would not be advisable.

As to the effect of temperature and humidity conditions while drying on the sizing quality, I doubt if much is known in this country. Continental literature has had some references to the need of moist heat to develop sizing quality in rosin-sized paper, especially where high free rosin is used. I have never observed any such conditions in practice such as you indicate, but others may have done so. In a laboratory it should be possible to determine definitely what the temperature must be in an atmosphere of 85 to 100 per cent relative humidity to get proper sizing results, and, if you can do so, it would be advisable to make the tests.

If you wanted then to arrange the drying so that an elevated temperature would be had when the sheet contained, say, 20 per cent moisture, two or four driers at that point could be supplied with live steam, the surplus to be passed to those at the wet end; the general drier train (sectionalized or not) being supplied with exhaust steam. Before making any change, however, I would try to find out if the sizing trouble you mention is really due to the drying, and not to some of the other many variables that are possible.

I am passing your inquiry to a considerable number of members interested in sizing, as well as drying. As their comments come in, I will pass them to you in blank, and in a few weeks distribute a transcript of the replies in blank to those who participate in the discussion.

W. G. MACNAUGHTON, Secretary of the Technical Association of the Pulp and Paper Industry.

TECHNICAL SECTION, PAGE 35

Eliminating Drag of Suction Box

"The writer, a papermaker of twenty-five years' practical experience, has been working on a device that will eliminate the drag of the suction box on the felts. Can you give me, from your experience or records, what in your opinion would be added to the life of the felt in terms of percentage by the elimination of suction box drag?

PAPERMAKER.

NOTE: Replies received in response to this inquiry will be handled in the usual way and a transcript in blank sent to those who contribute to the discussion.—SECRETARY, Technical Association of the Pulp and Paper Industry.

June News Print Statistics

Production of news print in the United States during June amounted to 120,723 tons and shipments to 122,229 tons, according to the News Print Service Bureau. Production in Canada amounted to 107,667 tons and shipments to 113,212 tons; making a total production of 228,390 tons and shipments of 235,441 tons, by 65 companies. The news print mills also made 752 tons of hanging paper, 241 tons of which were made in Canada. Stocks of news print paper at United States mills totaled 33,428 tons at the end of June, and at Canadian mills 15,336 tons, making a combined total of 48,764 tons which was equivalent to 4.8 days' average production.

Comparing production during the first six months of 1924 with similar periods in each of the four previous years the United States mills show 1 per cent less than 1923; 9 per cent increase over 1922, 22 per cent over 1921, 1 per cent less than 1920; the Canadian mills show 9 per cent more than in 1923, 31 per cent more than 1922, 81 per cent more than in 1921 and 53 per cent more than in 1920. The combined production of the United States and Canada shows an increase of 3 per cent over 1923, 18 per cent over 1922, 44 per cent over 1921 and 19 per cent over 1920.

Production in Mexico amounted to 6,441 tons during the first half of 1924. Political trouble caused suspension of operations for several weeks.

Security Behind Northern Mills Bond Issue

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., July 22, 1924.—Security behind a $675,000 bond issue authorized by the Northern Paper Mills of Green Bay recently is $3,420,995.24, according to the company's bond prospectus. The bonds bear interest at the rate of 6½ per cent but are yielding about 6.75 at the present market price.

The company's properties are listed as follows: Dock and site at Green Bay, $60,950; plant and property at Green Bay, $2,596,296; water power on Menominee river, $350,000; 4,806 acres of timberland in Octonagon county, Michigan, $311,773; stumpage and logging operations with Sawyer-Goodman Company, $101,974. Average net earnings for the last eight years, the report says, were $296,482 and the total bond holders' liens aggregate $1,100,000.

CURRENT PAPER TRADE LITERATURE

Abstract of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

CLARENCE J. WEST, CHAIRMAN

Mechanical Processes

Effect of Density of Wood in the Preparation of Groundwood. A. Malinovski. *Bum. Prom.* 2, No. 1, 78-80 (Jan.-Feb., 1923). Wood grown under unfavorable conditions possesses narrow annual rings. Such wood is dense and hard, requiring more time and energy in grinding. Grinding cold it was found that with the densest wood production fell to 27.8 per cent of normal per unit time. Amount obtained per unit volume fell to 14.2 per cent of normal. Also loss of fiber in white water increased 14 per cent. The cause is probably greater brittleness of the fibers of dense wood giving more small fibers. Wood with wide annual rings gave up to 5.3 per cent increase per unit weight, and up to 20.7 per cent gain per unit time over normal. On spruce the following measurements were made:

	Breaking Length		*Stretch*		*Folding Test*		% *Ash*
	$\frac{a+b}{2}$	a : b	$\frac{a+b}{2}$	a : b	$\frac{a+b}{2}$	a : b	
Paper from normal wood	3.080	0.42	2.38	1.50	6.96	0.43	2.83
Paper from dense wood.	2.490	0.43	1.94	1.71	3.66	0.33	2.75

The generally accepted preference for the softer woods is justified by these tests.—M. L. C.

Regulating Device for Wood Grinders. J. M. Voith. Ger. pat. 383,860. June 20, 1922. *Zellstoff U. Papier* 3, 276 (Dec., 1923 Description is given of a contrivance for determining the pressure of the wood in the grinder.—J. L. P.

Magazine Wood Grinder. F. Walther Gunther. Ger. pat. 387,614. *Papierfabr.* 22, 18-19 (Jan. 13, 1924). The pressure on the wood, contained in the magazine, is electrically controlled.—J. L. P.

Development in Wood Grinders Towards Achieving Highest Efficiency in Producing Mechanical Pulp. Otto J. Goeppinger. *Paper Trade J.* 77, No. 2, 43-48 (Jan. 10, 1924). A description of the Voith caterpillar magazine grinder and of its operation, with a comparison with other types, showing the following advantages: uniform power consumption, uniform high grade pulp, high yield per cord of wood on account of less slivers, minimum power consumption per ton of pulp, simple operation and low maintenance cost, adaptability to any form of wood (round, split, square, slabs, edgings); minute adjustment of finger bars during operation, easy changing of stone, elimination of pressure cylinders, pistons, etc., and capacity up to 1400 hp. per unit.—A. P.-C.

Chemical Changes of Groundwood During Decay. Mark W. Bray and T. M. Andrews. *Ind. Eng. Chem.* 16, 137-139 (Feb., 1924). Fresh, clean groundwood consisting of 70 per cent spruce and 30 per cent balsam was sterilized and then inoculated with pure cultures of fungi that had been isolated from pulp or pulpwood, and the more important chemical changes, together with the losses in weight, which take place in groundwood as a result of infection with specific organisms in pure cultures were studied. The brown rot organisms studied showed a selective action on cellulose and acted on the lignin only to hydrolyze off part of its methoxyl groups. The loss in cellulose in the case of extreme decay was 54 per cent, with an accompanying loss of 3 per cent lignin. The 2.8 per cent loss in methoxyl content practically accounts for the loss in weight of the lignin. The loss in weight and the chemical changes which the groundwood undergoes during a given time interval and under one set of conditions vary considerably with the nature of the organisms causing the decay.—A. P.-C.

Beater Theories. A. Fast. *Bum. Prom.* 2, No. 1, 45-58 (Jan.-Feb., 1923). Hoffman in 1872 published the results of the first experiments on the power consumption of beaters. Then appeared several other articles. Ferd. Jagenberg in 1887 was the first to offer a formula for beater operation. Mathematical analysis of beater problems by Kirchner followed in 1897. Haussner published his book in 1902 and Strohbach's articles appeared in 1904. Haussner attempted to show the dependence of the work of the beater upon its dimensions and the shape of its parts as well as upon the nature of the fibers treated. Pfarr in 1907 systematized the then prevailing theories and Haussner criticized his work in 1908. In 1908 Beadle and Stevens published their book. Kirchner's "Das Papier" appeared in 1914. The author then compares and criticizes the formulas of the aforementioned authorities under the headings: (1) Cutting, (2) Beating, (3) Power consumption, (a) productive and (b) non-productive.—M. L. C.

Testing the Beating Theories of Sigurd Smith. A. Fast. *Bum. Prom.* (Russia), 2, Nos. 2-3, 163-186 (1923). The author made a thorough study of the beating action of two beaters of different design using hemp, linen, cotton and wood cellulose. The chief difference between the two beaters was in the arrangement of the bars on roll and bedplate. Complete and detailed data of the experiments are given. Calculations were made by the formulas of Pfarr-Kirchner and also by those given in Smith's "Die Rationelle Theorie des Ganzzeughollanders" edited by Heuser (1921). The experimental results supported some of the beating theories, but there was also some disagreement, as in the relation of hydration, density and pressure upon bedplate; speed of circulation and spacing and depth of the bars on the roll.—M. L. C.

Acceleration of Mucilage Formation in the Beater by Chemical Means and by Adding Mucilage-Forming Substances. Carl G. Schwalbe. *Papierfabr.* 22, 1-5 (Jan. 6, 1924). The article is concerned for the most part with the author's past researches on the subject of pulp-mucilage formation in the beater. Most of the work has already appeared in previous articles or in patents. Cellulose, after treatment with hydrochloric acid gas and steam, is converted into a friable, pulverulent substance which goes readily to cellulose mucilage on beating. The conditions incident to mucilage formation, such as strength of acid, temperature, time of treatment, etc., are well defined. Similarly oxycellulose, treated with alkali and acidified, yields cellulose mucilage on beating. Paper stock and a small amount (1 kg.) of this mucilage in the beater will give a furnish which yields a dense, strong sheet of paper. Another method of producing mucilage is the use of certain natural substances. Tropical fibers are easily converted in the beater to the colloidal condition. Flax, or hemp chaff, after being cooked to pulp by the sulphite process, is beaten to an almost structureless mass in 15 to 30 minutes. A small amount of acid accelerates the reaction. The use of cellulose mucilage, made by a chemical process, would decrease the power, and therefore the coal, consumption in the beating process.—J. L. P.

Paper Texture and the Manufacturing Process. Paul Klemm. *Wochbl. Papierfabr.* 55, 62-64 (Jan. 12, 1924). This first article on the relation of paper texture to the manufacturing process is concerned with the preparation of the stock in the beater. In the first place, the beating treatment varies with the choice of fibrous material and is further influenced by the addition of non-fibrous substances, as fillers and sizing compounds. The purity of the water

used is often a factor to be reckoned with in the beater. For a paper of uniform texture certain gradations of fiber lengths are necessary. If the lengths of the fibers are more or less long, the less uniform will be the structure of the finished sheet. The density of paper diminishes with increase in elasticity of the fibers, in the water-soaked condition, and coarseness of the stock. Its density increases with increase of hydration, plasticity, and flexibility of the stock fibers.—J. L. P.

Beating Engine Bedplate. C. E. Greene. U. S. pat. 1,424,399, Aug. 1, 1922. The bedplate consists of alternate strips of steel and of wood bolted together in staggered arrangement and clamped in a trough-like bed. The bedplate rests on the floor of the trough between a pair of (preferably) wooden strips which are confined on one side by the side of the trough while the opposite side is shaped to conform to the staggered bedplate. The fasteners for the bedplate consist of angle irons, the vertical portions being against the side walls of the trough, the lower edges resting on the wooden strips, the horizontal portions being in substantially the same plane as the outer face of the bedplate, and the opposing edges conforming to the shape of the bedplate. As there is practically no wear on the fasteners, when the bedplate wears down the wooden strips are planed down sufficiently to bring the horizontal portion of the fasteners to practically coincide with the level of the bedplate.—A. P.-C.

Bleaching

Electrolytic Alkali Chlorine Installations of the Pulp and Paper Industries. August Weyl and Theodor Nissen. *Siemens Z.* 3, 407-409 (1923); *Chem. Abs.* 18, 201. The Siemens-Billiter cell was found to be well suited for the pulp factories on account of its simplicity of operation. In one of the German factories described, 26 S.-B. cells produce 1,480 kg. of chlorine gas (or 1,330 kg. of chlorine contained in chloride of lime), 1,670 kg. of sodium hydroxide (in solution, 50° Bé.) and 500 cu. m. of hydrogen. The consumption of power, labor and materials per day was: 5,300 kw. hrs., 2,600 kg. of sodium chloride (put into solution, 280 g. per l.), 1,550 kg. of burnt lime, 60 kg. barium chloride (for sodium chloride purification), 28 kg. calcined soda, I foreman and 10 laborers. The complete unit consists of a power plant, a sodium chloride dissolving plant, cell room, chlorine absorption room, and sodium hydroxide solution evaporating room. There are 26 cells in series, 2,000 amperes and 4 volts per cell. The diaphragm is composed of asbestos fiber and barium sulphate. The cathode is iron gauze. The cathode product averages 125 g. sodium hydroxide and 140 g. sodium chloride per liter. The purified product: 740 g. sodium hydroxide and 12 g. sodium chloride per liter.—C. J. W.

Sizing of Paper. L. P. Zhereboff. *Bum. Prom.* (Russia) 2, No. 1, 59-77 (1923). Most writers still persist in their adherence to the Wurster theories of the sizing process although the work of many investigators has shown them to be contrary to facts. Little progress has been made in the science of sizing, because of attempts to repair the faulty Wurster construction instead of rejecting it entirely. The work on the construction of rosin is fully reviewed from the time of Illig, 1806. Much was done in identifying the rosin acids, but very little in studying rosin as a whole in relation to paper sizing. Some of the investigators of rosin used methods which were later shown to be erroneous. Rosin can be separted into two acid groups: (a) by dissolving in a mixture of petroleum ether and alcohol and adding a few drops of water, and (b) by adding a prepared size to water at 30° C., when one of the groups drops out as a flocculent precipitate while the other group stays in solution as soap. The petroleum ether group of method (a), or the saponified group of method (b) is light yellow, easily floating, sticky, insoluble in aqeous spirits. The other group, found in size as free rosin, is dark, immobile even at 90°, non-sticky, brittle and soluble even at 50% alcohol. Most rosins contain 35 to 50% of the dark group. For one sample of rosin the constants of the light and dark groups, respectively, were: cold acid number (SZ)—184 and 150; hot acid number (KZ)—184 and 179; ether number (AeZ)—0 and 29. Sizing tests were made to determine which of the two groups was superior by dipping filter paper in alcoholic solutions of each and drying at 80° C. The light group gave well sized paper with 2.6% rosin, the dark group showed no sizing with 9.33%. The conclusion is drawn that the advantage of using a free rosin size is not in the efficiency of the free rosin particles, but by leaving the dark group of acids in the rosin free we prevent these from interfering with the combined rosin entering into chemical molecular action with the cellulose.—M. L. C.

Sizing Without Rosin. N. D. Ivanhoff. *Bum. Prom.* 2, No. 1, 141 (Jan.-Feb. 1923). Experimental run was made at the Okulooka mill using very fresh groundwood. One per cent of caustic soda on the weight of the air dry fiber was added in the kollergangs. The pulp contained 29.9% moisture and 0.354% rosin on air dry basis. The alkalinity was 4.26 g. NaOH per liter of water. Three beaters of 45 pood capacity (750 kg.) were furnished with 27% chemical pulp and 73% mechanical pulp. After 2½ hr. beating 24 funt (about 20 lb.) of animal size and 54 funt aluminum sulphate were added. The paper made from this furnish was entirely unsized. In the next experiment the groundwood was furnished directly to the beaters from the grinders. The furnish was 65% groundwood and 35% chemical pulp. Caustic soda, 0.72% on weight of air dry groundwood was added. For 60 pood of dry fiber in 4 beaters, 12 funt of NaOH, 32 funt of glue, and 36 funt of alum, were added. Beating time was 2½ hr. The paper showed no sizing fastness. In previous tests at the Kondrov mill (*Bum. Prom.* No. 1, 1922, 146) there was 1.5% rosin on the dry groundwood in the kollergangs, and 0.45% on the fiber in the beaters, against 0.25% at the Okulooka mill. Beating time at the Kondrov mill was 4½ hr. The complete extraction of rosin in the wood evidently requires longer mechanical treatment and preferably heating of the stock.—M. L. C.

Humic Acid for Sizing. A. K. *Bum. Prom.* 2, No. 1, 118 (Jan.-Feb., 1923). Referring to the article of C. J. West in *Paper Trade Journal* (No. 1,-1922) it is pointed out that in spring sizing results are better due to the presence of humic compounds in the water. These act as "protective colloids" similarily to glue or starch. It is, therefore, the humic compounds that raise the efficiency of the rosin in sizing and not vice versa.—M. L. C.

Rosin Production in Native Forests. Anon. *Papierfabr.* 21, 5-7 (Jan. 6, 1924). A brief article dealing with rosin production in Europe.—J. L. P.

Notes on the Lorenz Method for Determination of Adhesive Colloids in Glue. Peter Kirchhoff. *Papierfabr.* 21, 529-430 (Dec. 23, 1923). The analysis of glue according to the method of F. Lorenz does not make a distinction between gelatine and adhesive colloids. This is in agreement with O. Gerngross and H. A. Becker, who assert that good gelatine has the same adhesive power as glue and that in investigation gelatine has not been used in the same concentration as glue. Adsorption of the proteins, precipitated by tannic acid, in gelatine and glue is only quantitatively possible to a certain degree by the use of alumina. At least 5 g. of alumina are necessary for the adsorption of 0.1 g. of glue substance and it is recommended that the residual solution, concenrrated to a small volume after the adsorption, be tested with tannic acid solution.—J. L. P.

Gelatine and Gelatine Sizing. A. Vanel. *Papier* 26, 1455-1458 (Dec. 1923). A description of the properties of gelatine and of the method of carrying out tub sizing with gelatine.—A. P.-C.

Science and Papermaking. Jacques Crolard. *Science et Indus.* 7, No. 108, 27-36 (Jan. 31, 1923). An outline of the necessity and advantages of studying papermaking problems scientifically, exemplified by the study required to ascertain the mechanism of sizing.—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

THE USE OF APPRAISALS IN DETERMINATION OF THE INCOME TAX*

By Sheldon E. Wardwell

Value of Appraisals to Executives

You will hear from other speakers of the methods and features of appraisals, but before I speak on my limited subject, I want to say that, although I have not had forty-eight years of experience like the last speaker, I fear I must admit having passed the years of adolescence and unsophistication, and I am frank to say that I have never seen any case where the executives of the company could not get a great deal more than it cost out of an appraisal, aside from any help which it might be on questions of taxation.

We all hope that the distressing years of the confiscatory excess profits tax are past, but few of us have yet had a satisfactory determination for all of those years. Further than that, the days of high taxes are not past, and, in my opinion, taxes will not be materially reduced for a decade, if in a generation. At the present time, Congress is facing the necessity of paying a bonus now, or in the immediate future. That will probably be followed by pensions in due course. Aside from these perhaps meritorious expenditures, the politicians are getting more and more in the habit of purchasing votes with sumptuary laws. They regard the public treasury as being as miraculously refillable as the widow's cruse, and the mentally dishonest persuade the economically illiterate that corporate income is the reservoir.

I cannot see but that one of the most important elements of cost for our close scrutiny is going to be taxes, and it remains for executives and the cost accountants whose duty it is to look after the investment, to strive in every legitimate way to see that the industry and property which they represent does not bear any more than its fair burden of the tax. This peroration is not out of place. I think we all realize it, and it cannot be too frequently repeated.

Many Kinds of Appraisals

When we come to the question of appraisals, it is to be remembered that for tax purposes there are a great many different kinds. Some companies may want an original cost appraisal, which is frequently useful in checking up books of account or invested capital, or in proving that books of account do not properly reflect invested capital, and that you are entitled to application of the relief sections of the law. In some cases, an appraisal may be desired for the purpose of proving the value as of some date of consolidation; in other cases, an appraisal based on present-day unit prices may be useful to determine amortization to which the industry may be entitled under the war amortization features of the income tax act; but I presume the appraisal most used, and the one in which you are naturally most interested, is the appraisal which is going to assist you in determining 1913 values.

Industrial Plant Values

It is a pretty well recognized fact that the books of account do not reflect the values of the plant, in industries which have been in existence for some time. There was a constant rise in prices in this country from 1893, or thereabouts, until 1913—not as violent or radical as it has been since that time—but still there was a very constant and regular increase in prices, and the appraisal based on 1913 unit prices is going to show up and enable you to prove a value higher than that shown on the books.

In addition, particularly here in New England where we have been on the whole rather conservative in our methods of accounting, one will very frequently find that the books and records of the company do not reflect either the costs or the values of the plant. An appraisal based on 1913 unit prices is going to allow you to take care of that situation, and if it is properly made and presented in detail, it is bound to be accepted in Washington and used as a basis for determination of your taxes, either in case of sale or in case of determining your annual rate of depreciation over the ensuing years.

Values of Specific Units

The appraisal is very useful in yet another respect. Very few companies have so departmentalized and unified their accounts, particularly their old accounts, that they can put their hands on the exact cost or value of a unit at the time when it may be displaced or become obsolete. All you accountants know that under the Revenue Department's interpretation of the income tax laws, there was no allowance for obsolescence prior to the 1918 act, except, of course, when the unit was discarded. Under the 1918 act you are allowed to make a depreciation deduction which will take into consideration the accrual of obsolescence. The department intimates (although I cannot find anywhere that they have actually so ruled) that you can accrue for a unit only where you can actually point the finger of scorn at it, and say that this is now, or in a year or two hence will be, obsolete. In my opinion, that is an incorrect interpretation of the law. The law says that you are entitled to "a reasonable allowance for obsolescence"; and, I think, when Congress wrote those words into the statute it intended to provide that you

*Address delivered at Worcester, Mass.

could set up a reserve which would assure you of being in a financial position where you could replace any unit at the end of its useful life, without regard to whether or not you could, during the years of accrual, point to the obsolescence feature which was going to shorten the life of the unit and take it out before its time.

The appraisal is very useful in this respect. If you attempt to calculate your normal wear and tear depreciation, and add to that your obsolescence requirement without a knowledge of the actual cost of the particular plant unit in detail, you are not going to get very far with the department. If, on the other hand, you have a schedule made up in such detail as engineers can furnish you, of your various units, when the life of a unit expires you are going to be able to calculate the cost or value of it, and also the depreciation which you have been allowing as a charge against the unit, down to the time when it is scrapped or has become obsolete. Then you are in a position to know actually what the obsolescence is which you are entitled to charge off, and you are also, in the process, able to calculate and provide for that obsolescence to a considerable extent in advance, and prove your case with the department so that you can obtain your obsolescence allowance annually instead of waiting for the deaths.

You will realize that with the average bookkeeping system, even with the best co-operation between the engineers or managrs in charge of the various units of the plant, and the accountants, when it comes to the time of discarding any property it is very difficult to be able to discover all the costs of the property thrown out. It is all right if you tear down a whole building or something like that, or discard all the machinery in it, but if you are doing a remodeling job and throwing out individual machinery, how often are you able to obtain from the managers, the engineers or the records, the value, not simply of the unit which is being discarded, but of all the subsidiary equipment which goes with it, such as pumps, piping, machine foundations, grading, and particularly the factor of intangible costs which are properly ascribable to that unit? I have never found many cases where a corporation which had been in existence for a good many years, had kept its records in such shape that the accountant who had to do it, could sit down and check over the items and be sure that he was taking care of all the eliminations when those eliminations were due. The inventory and appraisal properly made in detail will enable you to do it, and enable you to sustain your figures in Washington.

Your chairman spoke of my experience with the Valuation Committee of the Forest Products Industries. So far as I know, practically every large company which is in the forest products industry was forced to go out and make an appraisal of their timber holdings. That is perfectly natural. The depletion element is very large, very important, and very much in dispute. They had to do it, and I know of very few cases where those appraisals were not found so useful as to impel them to follow them up with a plant appraisal, if they had not already had one. The same thing is true all through the wasting industries. It has been rather neglected by the manufacturing industries here, although I think the appraisal is coming into its own in time.

The Call for Detail Appraisals Imperative

On the method of making an appraisal, I had not intended to talk, but I will say this word of warning from experience. An appraisal which is not made in detail is not going to do you any good in Washington. I have forgotten the number of the ruling, but most of you are familiar with it—the ruling of the department on what is necessary before they will consider an appraisal. In most cases the information can be furnished without very much trouble; but if it cannot be furnished, it is not necessary, in spite of their ruling. They are accepting appraisals where they cannot furnish all this evidence, and I will say that courts of law have accepted appraisals where very much less than detail information is furnished; but, so far as the actual inventory and the pricing thereof is concerned, that should be in detail. Otherwise, it is no good for insurance purposes, and it is no good for tax purposes, and the department is entirely right in throwing out an inventory and appraisal which is not in detail, or is not in such shape that the engineer and the accountant can explain in detail the unit prices which are being applied to a particular item. I am entirely in sympathy with the department's attitude in requiring the detailed costs. If they are not given the details, they cannot check up, and so cannot do anything with the appraisal.

An appraisal which is based on a certain cost per spindle, or something like that, has its own value in determining the value of your plant, but it is not going to do you any good in Washington, and it is not going to do the managers of the plant any good in the long run. A cubic foot measurement or a figure based on an assumed curve does not amount to anything. If you want an appraisal, it is worth while to spend money to obtain one which lists the units in every minute detail and which brings up, with the field sheets back of it, all the detailed costs which go into it; and when once you have it, it is not a great deal of trouble for the accountant, with a little assistance from the engineer, to keep it along from day to day, so that it is practically a perpetual appraisal which is good not only for tax but for all purposes.

I am very glad to have the pleasure of speaking to you, and I hope that such of you as have appraisals, are going to have as good luck in Washington with them as I have had. I have not completed all of mine yet, and I have lots of quarrels on my hands—I think the members of the special engineering section who are now handling appraisals are not to be blamed. They are greatly handicapped by the amount of work on hand. The section was not organized in time, the personnel was scattered throughout special sections, and it has just recently been brought into an engineering section. I think in the course of years that it is going to be of great assistance there in the determination and the alleviation of our tax burdens.

RELATIONSHIP BETWEEN BANKER AND ACCOUNTANT*

By Walter W. Head

The banker's real need for the service of a certified public accountant and the great responsibility of the accountant—are peculiarly the result of the complexity of modern business relationships. In the early days of banking there were no certified public accountants. There was no real need for the service rendered today by certified public accountants. Bank loans, in an early day, were made upon the basis of the confidence which the banker felt in the applicant for a loan—just as today—but the establishment of this confidence was the result of direct personal contact, not the result of a statistical analysis. The banker formerly knew personally the men who applied for the loans. Frequently he knew all the details of their career, their family history, the reputation of their ancestors. Certainly he knew all the essential facts of their own business history. Off-hand, the banker of that period could assay the relative financial integrity and stability of almost every individual in his community. He may not have known the exact amount of the assets and liabilities of any individual. Instead of that, he built his credit file upon his knowledge of human nature and, particularly, upon the nature of his own customers.

The growth of cities and the development of great corporations made it impossible for the banker to continue to do business by these methods. It became an impossibility for any individual officer

*A paper read at the regional meeting of the mid-west district of the American Inst. of Accountants, at Omaha, Neb., May 23, 1924. (From *Journal of Accountancy*).

to know all the persons with whom his bank did business. Corporate organizations, to a considerable extent, removed the personal element from financial transactions. Personal integrity continued—continues today—to be the most important single factor in rating a customer's credit; but this alone does not suffice, nor is the banker able to determine even this factor with the same simplicity and the same direct contact that was formerly the rule. For a time, under the new conditions, the banker continued to deal directly with his customers who sought loans. He dealt with them on a more formal basis. He asked for financial statements. He made inquiry as to the accuracy of the statements rendered. But he continued to maintain a direct contact in so far as this investigation was concerned. He was his own accountant.

Direct Relationship Outgrown

In time however, even this direct relationship was outgrown. Increasing intricacy of business relationships and increasing size of business units required the development of specialists, who made it their business to attain a special proficiency in the analysis of financial statements. These specialists have developed into the profession of certified public accountancy, as it exists today.

The original work of such accountants was the checking up of the liabilities shown on a financial statement, the verification of the facts as stated and the investigation of the basis for these facts. Next the banker required the accountant to investigate the customer's statement of assets, not merely to verify the accuracy of the figures, as reflecting accurately the record of the customer's own books, but also to make certain that the book figures accurately portrayed the actual condition of his business. This made it necessary that quantities and values of merchandise be verified, that the classification of items be approved, that charge-offs and off-sets, proved to be necessary by the general average of the particular business under investigation, be set up properly.

The banker's need for this service—which involves a tremendous ramification of detail and a wide knowledge of accounting, of finance and of general business practice—finally brought the profession of certified public accountancy to its present high standing. Today, the certified public accountant is indispensable to the banker.

No other profession owes such devotion to truth, which always inculates confidence, as does that of accountancy. No group of men should be so especially possessed of a "single-track mind"—to use a phrase made famous by Woodrow Wilson. The accountant should operate always on a single-track—and that a straight track-driving directly and steadily toward one goal, the facts of the case. We bankers admit and applaud the accountant's devotion to the truth and his service to us in ascertaining the truth. Accountants, however, are but human. Not all pursue the ideal of their profession with the same zeal or the same efficiency. For that reason, it is proper to discuss some of the relationships between banker and accountant which are not, from the banker's viewpoint, maintained at a uniform standard of perfection.

The greatest defect in the analysis of financial statements is incompleteness. This may be due to acts of commission by the accountant or to acts of ommission. Both are equally serious, from the banker's standpoint.

Carelessness as to Assets

There may be, and too frequently is, carelessness in the classification of assets. For instance, a single item, "accounts receivable." frequently does not represent the true situation. This may include merely the accounts receivable in the ordinary course of business; it may include accounts past due. In order to be entirely clear to the banker, it should separate accounts past due into one or more independent classifications, so that the banker may judge, in the light of his knowledge of general business conditions, whether the accounts receivable are really worth the total amount set up under this heading. It is highly important that proper charge-offs be made, based on the experience of the particular business, for uncollectible accounts.

Another item, capable of serious abuse is "notes receivable." Here again it is important that there be some indication as to whether these are notes received in the ordinary course of business or notes received for past—due accounts, or, perhaps, notes given by officers or stockholders or employees of the company. The mere item "notes receivable" may be seriously misleading.

Speaking generally, the banker can not be expected to see—he cannot see—that which is not in the statement. The accountant should not assume that the banker is possessed of any powers of clairvoyance or even of particularly superior intelligence. The accountant is the man who is in a position to know the facts. He should set them forth in such detail that there can be no possible misunderstanding. It should be his goal to make his audit so simple and clear that a child might read and understand it. That goal, it is true, may be impossible of absolute attainment, but it is a goal which may be kept in mind with great benefit.

Always and everywhere, the two qualities which determine the value of the accountant are sincerity and honesty. There can be no temporizing in either case. The accountant must ever keep in mind that he is an independent agent. He may be employed by a corporation to prepare an audit, but this audit, when completed, is not the corporation's audit. It is the accountant's audit. His signature attached gives it the indorsement of his reputation for diligence and integrity. It should reflect credit upon him for, if it does not, it will reflect discredit. There is no middle ground.

Reputation Back of Signature

The mere phrase "certified public accountant" below the signature is not, in itself, convincing. The name of the accountant supported by the test of past performance, guaranteed by his reputation for integrity and diligence, is the important thing. The name is something which every accountant should guard with the greatest care. It is his honor; and, more, it is his stock in trade. The accountant's sincerity and integrity should be aggressive qualities, positive, not negative. It is within the accountant's power to discourage "dressed" statements. Not merely should the accountant refuse to connive at fraud, which he usually does with emphasis, but he should be insistent upon the inclusion of every item that is necessary to show an absolutely fair, uncolored statement of the condition of the company which he is examining. It is as much his duty to protest against the use of ambiguous phrases or ambiguous classifications as it is his duty to object to positive fraud. Particularly should the accountant set forth exactly what he has done and exactly what he has not done. A statement of the value of stock at a certain amount is well-nigh worthless unless it is accompanied by a statement of the precautions which are taken to check the item. Did the accountant check the footings of the company's books? Did he make test counts to confirm the quantities listed in the company's books? Did he examine the original records of purchases or of sales? If the audit does not clearly show the exact point to which the accountant proceeded, the banker must either disregard the figure or make an independent investigation—if, indeed, he does not fall into the pitfall of accepting the audit for what it seems, but is not.

I recall a certain audit which came to my attention a few months ago. An investigation of the basic facts of the business which it purported to analyze, but did not, showed that is misrepresented the status of the company to the extent of $100,000, a matter of nearly 20 per cent of its alleged net worth in this case. This was the result of mishandling an item of $100,000 which appeared both in accounts receivable and in merchandise.

Connived at a Fraud

Such misrepresentation would not have been possible unless the accountant connived at the fraud or willingly shut his eyes and certified figured about which he knew nothing. In another instance,

recently a thorough check showed gross errors in the accounts of a certain corporation for a period of five years, although every year a certified public accountant certified the accuracy of the statements. In one year the certified audit showed a profit to have been earned; in fact, nearly a half million dollars of new money had been put into this concern, a fact which the audit overlooked entirely.

Discrepancies such as these force bankers to draw the line between 100 per cent accountants and 75 per cent accountants and 50 per cent accountants. The accountant may say very properly that he is sometimes employed to make an audit which is not intended to be complete. That is very true. But, in such case, he should specify carefully the limit to which he has gone, in order that the banker may know, from the face of the record before him, that the audit is not complete and exactly wherein it is not complete.

Such care is the supreme test of the accountant. It is easy, it is a natural tendency of human nature, to omit direct references to statements which reflect discreditably upon the concern examined. The accountant's client may object, in case the corporation examined is the client rather than the bank. But strict integrity requires that no essential factor be omitted and nothing is more essential than a clear showing of the point at which the audit stopped.

INDUSTRIAL STANDARDIZATION*

Industrial standardization consists in singling out specific products and materials, in settling upon their properties and dimensions, and in concentrating upon them both in production and in use—all to the end of bringing about the greatest possible industrial efficiency. This includes:

1—Nomenclature.
Definitions of technical terms used in specifications and contracts and in other technical work.
Abreviations.
Symbols for quantities used in equations and formulas.
Graphical symbols (ideographs).
2—Uniformity in dimensions necessary to secure interchangeability of parts and supplies, and the interworking of apparatus.
3—Specifications for materials and equipment.
4—Methods of test.
5—Rating of machinery, tools and apparatus.
6—Provisions for safety.
7—Rules for the operation of apparatus and machinery in industrial establishments.
8—Concentration upon the optimum number of types, sizes and grades of manufactured products.

Standardization Important

Advantages—The important role which standardization plays in industrial evolution, and its economic and social potentialties are only beginning to be generally understood. Among the many imporant advantages of standardization are that: it simplifies manufacturing processes; it stabilizes production and employment, since it makes it safe for the manufacturer to accumulate stock during periods of slack orders, which he cannot safely do with an unstandardized product; it lowers cost to the public by making mass production possible; it enables buyer and seller to speak the same language, and makes it possible to compel competitive sellers to do likewise; it reduces selling cost; it stimulates research and makes for the elimination of antiquated methods and products; and by concentration on essentials, and the consequent suppression of confusing elements intended merely for sales effects, it helps to base competition squarely upon efficiency in production and distribution and upon intrinsic merit of product.

Stages of Development

The process of industrial standardization may be conveniently divided into four stages, namely:

1—by individual firms;
2—by societies and associations;
3—on a national scale;
4—on an international scale.

Standardization by individual firms is now well developed in all the principal industrial countries. It has been the essential factor in the development of mass production which has been the chief contribution of the United States to the development of industry.

The extensive company standardization developed during the last half of the nineteenth century inevitably gave rise to standardization for entire branches of industry. This work, which has been carried out by technical societies, trade associations and government departments, working individually, has, with a few notable exceptions, been a development of the present industry.

Just as standardization by individual companies led to standardization by industries, so it in turn has led to inter-industry standardization on a national scale. In this, the trade association and the technical society play the same role that the individual company does in standardization by separate industries. Standardization cannot reach its greatest effectiveness until it is treated as a national inter-industry problem and all the leading industrial countries have found it necessary to establish national industrial standardizing bodies. At present there are sixteen such national bodies, all but one of which have been organized during or since the war.

The Agencies Involved

Standardization is in its very nature a co-operative undertaking which to be successful must command the support of all the parties concerned. It has been shown over and over again that even in a single establishment standardization cannot attain full effectiveness without the whole-hearted co-operation of all the interested departments.

In company standardization the problems of administrative technique are relatively simple. In standardization by an industry they are more complicated on account of the larger number involved. In inter-industry, or national standardization, the problems are still more complicated. In fact such work can ordinarily be carried out only in thone fields in which there exist well developed trade and technical associations which can speak for the various branches of industry concerned.

So complex and interrelated has modern industry become that industrial organizations and their activities have become more or less of a maze. There are in this country perhaps a thousand organizations that may properly be classed as trade associations. Literally hundreds of technical and trade associations are engaged in standardization activities in some form. In addition, numerous branches of the Federal Government are active in standardization work.

Must Be on Inter-Industry Basis

To reach its full effectiveness standardization must be carried out on a national inter-industry basis, for if this is not done and the numerous branches of industry develop their own standards independently, many conflicting standards result since practically every subject ramifies into different branches of industry. Confusion and waste result. In order to make possible standardization on a national scale, there must be a central clearing house to bring about systematic co-operation among the hundreds of organizations on the innumerable problems that are crowding for solution.

To fulfill the need for such a national clearing house, the American Engineering Standards Committee was organized in 1918, the initiative having been taken by five national engineering societies.

*From American Eng. Standards Committee Year Book, 1924.

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S. Birkenstein & Sons, by same, 356 bls. rags.
S. Birkenstein & Sons, California, Glasgow, 124 bls. paper stock.
M. O'Meara Co., Coaxet, Antwerp, 76 bls. rags.
Guaranty Trust Co., United States, Copenhagen, 685 bls. rags.
Castle & Overton, by same, 399 bls. rags.
Castle & Overton, California, Havre, 184 bls. bagging.
D. M. Hicks, by same, 39 bls. bagging.
Mechanics & Metals National Bank, by same, 73 bls. bagging.
Baring Bros. & Co., by same, 29 bls. rags.
Guaranty Trust Co., by same, 28 bls. rags.
Guaranty Trust Co., by same, 17 bls. cotton waste.
Goldman, Sachs & Co., Olen, St. Nazaire, 150 bls. rags.
E. J. Keller Co., Inc., by same, 84 bls. rags.
Castle & Overton, E. Victor, Antwerp, 45 bls. rags.
Albion Trading Co., W. Eldara, Dunkirk, 91 bls. rags.
McKenzie & Co., W. Eldara, Havre, 18 bls. rags.
Amsinck, Sonne & Co., by same, 45 bls. flax waste.
Guaranty Trust Co., A. Ballin, Hamburg, 299 bls. rags.
International Acceptance Bank, by same, 350 bls. rags.
F. Salomon, by same, 55 bls. rags.
F. Salomon, by same, 71 bls. bagging.
A. W. Fenton, Inc., by same, 27 bls. rags.
Salomon Bros. Co., by same, 82 bls. rags.
Goldman, Sachs & Co., by same, 127 bls. rags.
Castle & Overton, Veendam, Rotterdam, 36 bls. rags.
D. M. Hicks, by same, 77 bls. bagging.
S. Birkenstein & Sons, by same, 88 bls. bagging.
Whaling Waste Products Co., by same, 98 bls. rags.
G. M. Graves Co., by same, 23 bls. rags.
E. J. Keller Co., Inc., by same, 233 bls. paper stock.

OLD ROPE

Brown Bros. & Co., Veendam, Rotterdam, 110 coils.
N. S. Mortgage & Trust Co., by same, 19 coils.
Brown Bros. & Co., A. Ballin, Hamburg, 53 coils.
Brown Bros. & Co., Mt. Clay, Hamburg, 14 coils.
Brown Bros. & Co., Northwestern Miller, London, 44 coils.
Brown Bros. & Co., President Harding, Bremen, 15 coils.
Brown Bros. & Co., Idaho, Hull, 366 coils.
Brown Bros. & Co., Samland, Antwerp, 143 coils.
Brown Bros. & Co., Chicago City, Bristol, 426 coils.

WOOD PULP

Whalen Pulp & Paper Mills, Hermion, Swanson Bay, 6,555 bls. sulphite pulp.
H. Hollesen, Yorck, Bremen, 3,363 bls. wood pulp.
Scandinavian Pulp Agency, Inc., by same, 1,000 bls. wood pulp.
Bulkley, Dunton & Co., by same, 250 bls. wood pulp.
J. Andersen Co., United States, Kristiania, 1,440 bls. wood pulp.
E. M. Sergeant Co., United States, Copenhagen, 150 bls. wood pulp.
Buck, Kiaer & Co., Topdalsfjord, Greaker, 830 bls. sulphite pulp, 168 tons.

(*Continued on page 60*)

New York Office
280 Broadway

Dayton Office

Chicago Office
10 So. La Salle St.

Compare it
Tear it
Test it
and you will specify it

HOWARD BOND

WATERMARKED

Howard Laid Bond
Howard Ledger
Howard Bond
Envelopes

"The Nation's Business Paper"

Made by

THE HOWARD PAPER CO. URBANA, OHIO

The B Co. INC.

QUALITY PULPS

HAFSLUND NORWAY

"HAFSLUND BEAR"
Bleached Sulphite

F. HAGA

"FORSHAGA"
Bleached Sulphite

KRAFT HURUM

"HURUM SPECIAL"
Extra Strong Kraft

NORWAY SPECIAL

KOOS BAC

"BAMBLE"
Extra Strong Kraft

The Borregaard Company

Incorporated

200 FIFTH AVENUE NEW YORK, N. Y.

IN THE YEAR 1690

the first paper mill was established on ground that is now included in Philadelphia.

IN THE YEAR 1909

the Kalamazoo Vegetable Parchment mill was established and so it happens that in 15 years we have grown to be the largest producers of Vegetable Parchment Paper under one roof in the world. This product wraps all moist and greasy foods. Our bread wraps and waxed papers, our bond and ledger papers and our handy household paper in rolls are favorably known and universally used.

Kalamazoo Vegetable Parchment Company

Kalamazoo, Michigan

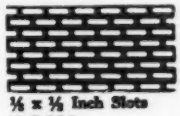
Perforated Metal Screens

For Pulp and Paper Mills

STEEL, COPPER, BRASS, BRONZE and other Alloys

.065 Inch Round

punched for Centrifugal and Rotary Screens, Pulp Washers, Drainer Bottoms, Filter Plates, etc.



⅛ x ½ Inch Slots

CHARLES MUNDT & SONS

63-65 FAIRMONT AVE. JERSEY CITY, N. J.

STOKERS

Builders of Mechanical Stokers for 35 years

Sales and Service Offices in All Principal Cities

Address Nearest Office

Westinghouse Electric & Mfg. Co.
So. Philadelphia Works, Philadelphia, Pa.

W WESTINGHOUSE ELECTRIC

Westinghouse

Imports of Paper and Paper Stock

(*Continued from page 58*)

National City Bank, by same, 500 bls. sulphite pulp, 101 tons.
E. M. Sergeant Co., by same, 500 bls. sulphite pulp, 101 tons.
Pagel, Horton & Co., Inc., Argosy, Hornefors, 7,800 bls. sulphite pulp, 1,300 tons.
Pagel, Horton & Co., Inc., Argosy, Gefle, 500 bls. sulphite pulp, 101 tons.
Pagel, Horton & Co., Inc., by same, 1,750 bls. sulphate pulp, 355 tons.
Bulkley, Dunton & Co., by same, 3,500 bls. sulphite pulp, 710 tons.
Hartig Pulp Co., by same, 2,625 bls. sulphite pulp, 532 tons.
J. Andersen Co., Stavangerfjord, Sarpsborg, 660 bls. wood pulp.
Price & Pierce, Ltd., Kungsholm, Gothenburg, 240 bls. wood pulp.
Lagerloef Trading Co., Argosy, 1,090 tons chemical pulp.

WOOD FLOUR

B. L. Soberski, Kungsholm, Gothenburg, 1,694 bags.
B. L. Soberski, Stavangerfjord, Frederickstad, 2,250 bags.
A. Kramer & Co., Topdalsfjord, Stavanger, 800 bags, 40,800 kilos.

CASEIN

Atterbury Bros., Inc., Olen, St. Nazaire, 333 bags, 26,165 kilos.
National City Bank, Boswell, Buenos Aires, 1,667 bags.
Kalbfleisch Corp., American Legion, Buenos Aires, 773 bags.

CHINA CLAY

C. T. Wilson & Co., Inc., Chicago City, Bristol, 334 bags.
C. B. Richard & Co., by same, 136 bags.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 19, 1924

S. S. Alcorn, Trolleholm, Gothenburg, 29 bls. paper.
Scandinavian Pulp Agency, Inc., by same, 127 bls. sulphite pulp.
Scandinavian Pulp Agency, Inc., by same, 254 bls. Kraft pulp.
Scandinavian Pulp Agency, Inc., Troleholm, Skutskar, 1,000 bls. dry pulp.
Pagel, Horton & Co., Inc., by same, 1,600 bls. dry pulp.
Bulkley, Dunton & Co., Trolleholm, Gefle, 2,000 bls. sulphite pulp.
Castle & Overton, Virginia, Norway, 3,000 bls. wood pulp.
Castle & Overton, Kof. Maru, Germany, 258 bls. rags.
Castle & Overton, Seattle Spirit, Germany, 295 bls. rags.
Castle & Overton, Emden, Germany, 285 bls. rags.
Penn Rag & Metal Co., Northwestern Miller, London, 82 bls. rags.
Katzenstein & Keene, Inc., by same, 398 bls. rags.
Katzenstein & Keene, Inc., Bilderdyk, Rotterdam, 350 bls. rags.
Katzenstein & Keene, Inc., W. Eldara, Dunkirk, 238 bls. rags.
Castle & Overton, by same, 452 bls. rags.
Castle & Overton, W. Eldara, Havre, 207 bls. rags.
Castle & Overton, Coaxet, Antwerp, 387 bls. rags.
Castle & Overton, Olen, St. Nazaire, 590 bls. rags.
E. J. Keller Co., Inc., by same, 138 bls. rags.
E. J. Keller Co., Inc., Hannoner, Bremen, 136 bls. rags.
W. Schall & Co., Menominee, London, 155 bls. rags.
G. M. Graves Co., by same, 27 bls. rags.
H. Atkinson, by same, 151 bls. rags.
Old Colony Trust Co., W. Eldara, Havre, 121 coils old rope.

GALVESTON IMPORTS

WEEK ENDING JULY 19, 1924

E. J. Keller Co., Inc., Westland, Rotterdam, 49 bls. rags.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 19, 1924

Castle & Overton, Kentucky, France, 235 bls. rags.

BOSTON IMPORTS

WEEK ENDING JULY 19, 1924

Boston Production Co., Trolleholm, Gothenburg, 1,261 rolls news print.
H. J. Dowd Co., by same, 839 rolls paper.
H. J. Dowd Co., by same, 45 bls. paper.
Scandinavian Pulp Agency, Inc., by same, 1,270 bls. sulphite pulp.
Price & Pierce, Ltd., by same, 200 bls. sulphite pulp.
Pagel, Horton & Co., Inc., Trolleholm, Gefle, 3,500 bls. sulphite pulp.
Katzenstein & Keene, Inc., Davisian, Liverpool, 73 bls. new cuttings.
New England Waste Co., India Maru, Genoa, 56 bls. cotton waste.
American Exchange National Bank, Menominee, Antwerp, 73 bls. flax waste.
Baring Bros. & Co., Menominee, London, 119 bls. waste paper.
Brown Bros. & Co., by same, 306 bls. waste paper.
Brown Bros. & Co., by same, 106 coils old rope.
Brown Bros. & Co., by same, 15 bls. old rope.
Brown Bros. & Co., India Maru, Genoa, 305 coils old rope.

LOS ANGELES IMPORTS

WEEK ENDING JULY 19, 1924

Castle & Overton, Arkansas, France, 39 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING JULY 19, 1924

Howell & Donaldson, Trolleholm, Gefle, 594 bls. sulphite pulp.
The Borregaard Co., Trolleholm, Gothenburg, 1,000 bls. dry wood pulp.
Scandinavian Pulp Agency, Inc., Trolleholm, Skutskar, 6,125 bls. dry wood pulp.
Bulkley, Dunton & Co., Trolleholm, Gefle, 754 bls. dry wood pulp.
Pagel, Horton & Co., Inc., by same, 500 bls. dry wood pulp.
Bulkley, Dunton & Co., Argosy, Gefle, 2,125 bls. sulphite pulp, 431 tons.
Hartig Pulp Co., by same, 875 bls. sulphite pulp, 178 tons.
E. J. Keller Co., Inc., by same, 660 bls. sulphite pulp, 99 tons.
Lagerloef Trading Co., Argosy, Trangsund, 2,420 bls. sulphite pulp, 408 tons.
Castle & Overton, 685 bls. wood pulp.
E. J. Keller Co., Inc., Belderdyk, Amsterdam, 418 bls. rags.
Johaneson, Wales & Sparre, Inc., Kolsmaren, Gothenburg, 1,500 bls. Kraft pulp.

IN TRANSIT TO CANADA

Kalbfleisch Corp., American Legion, Buenos Aires, 716 bags casein.

THE PHILADELPHIA TRADE

(*Continued from page 32*)

pany that there are now being made three times as many Fobopak containers as formerly through the operation of the newly opened plants in Chicago and Bogaloosa, La. All the plants are of the same size as the original Philadelphia main factory and will be devoted to distribution of the containers for the shipment of fruits and vegetables and other products.

Kelly-Hughes Co. Fire Repairs

Repairs to the building of the Kelly-Hughes Company, paper stock and waste dealers, 1722-1740 N. Hancock street which was damaged by fire a few days ago will involve the rebuilding and re-equipment of the shredding room. The damage by the fire resulting from a combustion in the shredding machine amounted to $12,000.

Sale of Up State Paper Mills

The trade was notified of the sale of two up State paper mills, one of them formerly linked with the local paper house of the Auer and Twitchell Company, last year involved in bankruptcy proceedings and now out of business. The Easton Trust Company of Easton, Pa. last week sold the property of the Nardy Paper Mills, Inc. and the Lehigh Paper Mills, Inc. of Raubsville, to a committee made up of the bond holders of the two concerns for $100,000. The Easton Trust Company acted as Trustees in the disposition of the property which comprises six dwellings and out buildings, and a large mill well equipped with machinery and appliances necessary in the manufacture of paper on the premises. The mills were given over to the production of paper towels, toilets and furniture paper.

Bids for Government Paper

WASHINGTON, D. C., July 23, 1924.—The Government Printing Office has received the following bids for 10,400 pounds of white and yellow 31½ x 36 sulphite bond paper: Reese & Reese $.08777 per pound, $.09285, $.09777 and $.10285; Whitaker Paper Company $.1127 and $.1227; Dobler & Mudge $.1038 and $.1087; R. P. Andrews Paper Company $.079 and $.0865; Old Dominion Paper Company $.099 and $.1039; Hane-Weinkruntz Company, Inc., $.105 and $.115; American Writing Paper Company $.11 and $.12; International Paper Company $.087 and $097; Virginia Paper Company $.1226, $.1329, $.1176 and $.1279; Lindemyer and Harker $.1045; C. D. Hewitt & Bro. Inc., $.1249 and $.1349.

The Home of Quality

FACTORY
132ND TO 133RD ST. & BROOK AVE

PAPER BAGS and SACKS

GLASSINE BAGS—SPECIALTIES

Operating a Modern Printing Plant

This Registered Trade Mark Octagon

on a Paper Bag vouches for Its Good Quality

SCHORSCH & CO.

Manufacturers *Established 1901*

500 East 133d Street . New York

1864 1924

"EXCELSIOR" FELTS

for every grade of

PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

Seamless felts for fast running.
Satin Style felts for finish.
Special felts to meet every condition.
Send us your felt problems.

KNOX WOOLEN COMPANY
CAMDEN, MAINE

SOLD BY

BULKLEY, DUNTON & COMPANY
75-77 Duane St., N. Y., and direct

Clay

300 tons daily

AMERICAN MADE FOR AMERICAN TRADE

Some portion of our clay production is *pulverized*. That part of it which is *pulverized* is, as far as we know, the only *pulverized clay* which is washed and refined before being pulverized.

This insures greater freedom from impurities and an exceedingly uniform product.

Prices on M-E pulverized clay may surprise you even considering this additional treatment.

Let us submit samples and quote you

MECCO THE MINER-EDGAR CO. 110 WILLIAM ST., NEW YORK

FOURDRINIER WIRES

Dandy Rolls, Cylinder Molds,
Steel, Brass and Bronze
Wire Cloth
Bank and Office Railings.

CHENEY BIGELOW WIRE WORKS
Established 1842
SPRINGFIELD MASS.

J. ANDERSEN & CO.

21 EAST 40th STREET, NEW YORK CITY

Importers of Chemical Pulps

BLEACHED and UNBLEACHED

Agents for Kellner Partington Paper Pulp Co., Ltd.
Sarpsborg, Norway; Forshaga, and Edsvalla, Sweden.
Kronstädter Papierstoff—Fabriks Actien—Gesellschaft
Mills at Tuciansky, Sv. Martin

Market Quotations

PAPER SECURITIES CLOSING PRICES TUESDAY

Reported by Stewart Tuttle & Co., Inc., 120 Broadway, New York

Stocks	BID	ASKED
Abitibi Power and Paper Company, Ltd.	55	56
Abitibi Power and Paper Company, Ltd, Pfd.	99	101
American Writing Paper Company, Pfd.	5½	6
Brompton Pulp and Paper Company, Ltd.	30	30¼
Donnacona Paper Company, Ltd.	45	50
Donnacona Paper Company, Ltd., Pfd.	98	100
International Paper Company	55½	55⅝
International Paper Company, Pfd.	74	74⅜
Laurentide Company, Ltd.	85	85½
Price Brothers	40	41
St. Maurice Paper Co., Ltd.	85	87
Smith (Howard) Paper Mills, Ltd.	40	41
Spanish River Pulp and Paper Mills, Pfd.	104	104¼
Spanish River Pulp and Paper Mills, Ltd.	111	112
Union Bag and Paper Corp.	51	52
Wayagamack Pulp and Paper Company, Ltd.	33	35
West Virginia Pulp and Paper Company	50	54

Bonds	BID	ASKED
Abitibi Power and Paper Company, Ltd., 1st 6s, 1934	99	101
Abitibi Power and Paper Company, Ltd., Gen. 6s 1940	93	95
Abitibi Power and Paper Company, Ltd., Con. 8s 1931	102½	103½
Belgo Canadian Paper Company, 1st 6s 1943	94	95
Brown Company Serial 6s	99	100
Carthage Sulphite Pulp and Paper Company, 1st 8s 1941	35	50
Continental Paper and Bag Mills Corporation, 1st and Ref. 6½s, Series "A," 1944	94	95
Donnacona Paper Company, Ltd., 1st 6s 1940	98	100
Eddy Paper Company, 1st 7½s 1931	96½	98½
Gair (Robert) Company, 1st 7s 1937	97	97½
International Paper Company, 1st and Ref. 5s (Series "B") 1947	86	86⅝
Mattagami Pulp and Paper Company, 1st 6s 1937	58	60
Mattagami Pulp and Paper Company, 1st 7s 1949	20	25
Oswego Falls Corporation, 1st 8s 1942	101½	102
Oxford Paper Company, 1st and Ref. 6s (Series "A") 1947	98	100
Parker, Young Company, 1st 6½s 1944	95½	97½
Paterson Parchment Paper Company, 1st 6s (Series "A") 1938	96	97
Peshtigo Paper Company, 1st 7s (Series "B") 1942	92	94½
Price Bros. & Co., Ltd., 1st 6s (Series "A") 1943	97¾	98¾
Provincial Paper Mills, Ltd., 1st 6s 1940	98	100
Riordon Pulp and Paper Company, Ltd., Gen. 6s 1929	14	18
Riordon Pulp and Paper Company, Ltd., 6s 1942	80	84
Riordon Company, Ltd., 1st and Ref. 8s 1940	84	85
River Raisin Paper Company, 1st 8s 1936	103½	104½
Smith (Howard) Paper Mills, Ltd., 6s 1934	95	95½
Smith (Howard) Paper Mills, Ltd., 1st Ref. 7s 1941	93½	96
Spanish River Pulp and Paper Mills, Ltd., 1st 6s 1931	101	.03
Spanish River Pulp and Paper Mills, Ltd., Gen. 8s 1941	102¾	103¾
Wayagamack Pulp and Paper Company, Ltd., 1st 6s 1951	74	77

Paper

F. o. b. Mill		
Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@30.00
Superfine	14.00	@30.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.65	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.15	@ 4.40
Side Runs	3.00	@ 3.50
Book, Cased—		
S. & S. C.	7.25	@ 9.00
M. F.	7.10	@ 8.85
Coated and Enamel	9.00	@14.00
Lithograph	9.00	@14.00
Tissues—		
White No. 1	.75	@ .76
White No. 2	.70	@ .80
Colored	1.05	@ 1.90
Anti-Tarnish	1.35	@ 1.90
Kraft	.85	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	5.00	@ 5.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.00	@
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.50	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 5.75
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.40	@ 2.60
S. Screening	3.25	@ 3.75
Card Middles	4.00	@ 5.00

Boards—per ton—		
News	40.00	@55.00
Straw	50.00	@55.00
Chip	37.50	@42.50
Binders' Boards	70.00	@75.00
Sgl. Mla. Ll. Chip	50.50	@55.50
Wood Pulp	70.00	@75.00
Container	57.50	@65.00
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	12.00	@15.00
Bleached, basis 20 lbs.	14.00	@17.00

Mechanical Pulp

(Ex-Dock)		
No. 1 Imported	35.00	@40.00
(F. o. b. Mill)		
No. 1 Domestic	27.50	@34.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)		
Sulphite (Imported)—		
Bleached	3.75	@ 4.50
Easy Bleaching	2.90	@ 3.10
No. 1 strong unbleached	2.60	@ 2.80
No. 2 strong unbleached	2.20	@ 2.40
No. 1 Kraft	2.50	@ 2.85
Sulphate—		
Bleached	3.50	@ 3.65
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	3.50	@ 4.50
Easy Bleaching Sulphite	2.60	@ 3.00
News Sulphite	2.40	@ 2.60
Mitscherlich	2.60	@ 3.00
Kraft (Domestic)	2.60	@ 2.85
Soda Bleached	3.90	@ 4.10

Domestic Rags

New Rags		
Prices to Mill, f. o. b. N. Y.		
Shirt Cuttings—		
New White, No. 1	13.00	@13.50
New White, No. 2	6.25	@ 6.75
Silesias, No. 1	7.50	@ 8.00
New Unbleached	10.50	@11.00
Washables	5.50	@ 6.15
Fancy	6.50	@ 7.00
Blue Overall	8.00	@ 8.50
New Blue	5.50	@ 6.00
New Black Soft	4.65	@ 5.15
New Light Seconds	3.00	@ 3.25
O. D. Khaki Cuttings	4.75	@ 5.00
Men's Corduroy	4.00	@ 4.25
New Canvas	7.00	@ 7.50
New Black Mixed	2.75	@ 3.00

Old Rags		
White, No. 1—		
Repacked	6.50	@ 7.00
Miscellaneous	5.50	@ 5.75
White, No. 2—		
Repacked	4.25	@ 4.50
Miscellaneous	3.75	@ 4.00
St. Soiled, White	2.80	@ 3.00
Thirds and Blues—		
Repacked	3.62½	@ 3.87½
Miscellaneous	2.90	@ 3.15
Black Stockings	3.75	@ 4.00
Roofing Rags—		
Cloth Strippings	1.90	@ 2.00
No. 1	1.90	@ 2.00
No. 2	1.80	@ 1.90
No. 3	.90	@ 1.00
No. 4	.90	@ 1.00
No. 5A	1.50	@ 1.60

Foreign Rags

New Light Silesias	7.50	@ 8.75
Light Flannelettes	8.00	@ 8.25
Unbl'chd Cottons	9.00	@ 9.50
New White Cuttings	11.50	@12.50
New Light Oxfords	7.75	@ 8.25
New Light Prints	7.25	@ 7.75
New Mixed Cuttings	3.25	@ 3.75
New Dark Cuttings	3.00	@ 3.50
No. 1 White Linens	9.00	@10.00
No. 2 White Linens	7.00	@ 8.00
No. 3 White Linens	6.00	@ 6.50
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.00	@ 4.50
Ord. Light Prints	3.00	@ 3.50
Med. Light Prints	2.40	@ 2.50
Dutch Blue Cottons	3.50	@ 4.00
Ger. Blue Cottons	3.00	@ 3.25
Ger. Blue Linens	3.50	@ 4.00
Checks and Blues	2.25	@ 2.50
Dark Cottons	1.50	@ 1.75
Shoppery	1.40	@ 1.60
French Blues	3.25	@ 3.75

Bagging

Prices to Mill F. o. b. N. Y.		
Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.55	@ 1.65
Wool, Tares, light	1.40	@ 1.50
Wool, Tares, heavy	1.40	@ 1.50
Bright Bagging	1.15	@ 1.25
Sound Bagging	.90	@ 1.00
Manila Rope—		
Foreign	6.25	@ 6.50
Domestic	6.50	@ 6.75
New Bu. Cut	2.40	@ 2.60
Hessian Jute Threads—		
Foreign	2.40	@ 2.60
Domestic	2.10	@ 2.20

Old Waste Papers
(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.60
Hard, White, No. 2	2.90	@ 3.10
Soft, White, No. 1	2.50	@ 2.70
Flat Stock—		
Stitchless	1.30	@ 1.40
Over Issue Mag.	1.40	@ 1.50
Solid Flat Book	1.20	@ 1.30
Crumpled No. 1	1.90	@ 1.00
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.30	@ 1.40
New B. B. Chips	.50	@ .55
Manilas—		
New Env. Cut	2.45	@ 2.55
New Cut, No. 1	1.65	@ 1.90
Extra No. 1 old	1.30	@ 1.40
Print	.80	@ .90
Container Board	.55	@ .65
Bogus Wrapper	.60	@ .70
Old Krafts Machine compressed bales	1.65	@ 1.75
News—		
No. 1 White News	1.65	@ 1.75
Strictly Overissue	.80	@ .90
Strictly Folded	.50	@ .60
No. 1 Mixed Paper	.40	@ .50
Common Paper	.35	@ .40

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.43	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.41	@ .42
A. B. Italian, 18 Basis	.51	@ .61
Finished Jute—		
Dark, 18 basis	.30	@ .31
Light, 18 basis	.28	@ .30
Jute Wrapping, 3-6 Ply—		
No. 1	.20	@ .23
No. 2	.18	@ .20
Tube Rope—		
4-ply and larger	.15	@ .17
Fine Tube Yarn—		
5-ply and larger	.20	@ .28
4-ply	.21	@ .24
3-ply	.22	@ .25
Unfinished India—		
Basis	.14	@ .15
Paper Makers' Twine		
Balls	.11	@ .13
Box Twine, 2-3 ply	.14	@ .15
Jute Rope	.15	@ .16
Amer. Hemp, 6	.30	@ .32
Sisal Hay Rope—		
No. 1 Basis	.14	@ .16
No. 2 Basis	.10	@ .12
Sisal Lath Yarn—		
No. 1	.14	@ .15
No. 2	.11	@ .13
Manila Rope	.18	@ .19

CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

Paper

F. o. b. Mill		
All Rag Bond	35	@ 40
No. 1 Rag Bond	25	@ 35
No. 2 Rag Bond	14	@ 25
Water Marked Sulphite	9	@ 12
Sulphite Bond	7	@ 10¾
Sulphite Ledger	9½	@ 12
Superfine Writing	18	@ 24
No. 1 Fine Writing	14	@ 18
No. 2 Fine Writing	12	@ 14
No. 3 Fine Writing	9	@ 12
No. 1 M. F. Book	5¾	@ 7½
No. 1 S. & S. C. Book	6½	@ 7¾
Coated Book	8	@ 10
Coated Label	8	@ 10
News—Rolls, mill	3¾	@ 4½
News—Sheets, mill	4	@ 4¾
No. 1 Manila	4¾	@ 6½
No. 1 Fibre	4¾	@ 5½
No. 2 Manila	3¾	@ 4½
Butchers' Manila	4¾	@ 4½
No. 1 Kraft	5½	@ 6
No. 2 Kraft	4¾	@ 5
Wood Tag Boards	4½	@ 6
Sulphite Screenings	2¼	@ 2¾
Boards, per ton—		
Plain Chip	$35.00	@40.00
Solid news	37.50	@42.50
Manila Line Chip	50.00	@52.50
Container Lined—		
85 Test	55.00	@60.00
100 Test	60.00	@65.00

Old Papers

F. o. b. Chicago		
Shavings—		
No. 1 Hard White	3.00	@
White Envel. Cuttings	3.00	@
No. 1 Soft Shav.	2.50	@ 2.60
No. 1 Mixed	1.25	@ 1.35
No. 2 Mixed	1.15	@ 1.25
Ledgers and Writings	1.45	@ 1.50
Solid Books	1.40	@ 1.50

No. 1 Books, Light.	1.25	@	1.30
Blanks	1.75	@	1.80
Ex. No. 1 Manila..	1.90	@	2.00
Manila Envelope Cuttings	2.10	@	2.15
No. 1 Manilas...	1.00	@	1.05
Folded News (over issue)	.90	@	1.00
Old Newspapers—			
No. 1	.85	@	.90
No. 2	.70	@	.75
Mixed Papers—			
No. 1	.75		
No. 2	.70		
Straw Clippings	.80	@	—
Binders' Clippings..	.80	@	—
Kraft	2.00	@	2.10
New Kraft Cuts...	2.10	@	2.15
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	$35.00	@	—
No. 2	33.00	@	—
No. 3	31.00	@	—
No. 4	31.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

Paper

Bonds	.09½	@	.53
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.09¾	@	.12¾
Book, S. S. & C..	.11	@	.15
Book, Coated	.14¼	@	.20
Coated Lithograph.	.10	@	.15
Label	.10	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.08½
No. 1 Kraft	—	@	.09½
Common Bogus	.03½	@	.04
Shaw Board	55.00	@	60.00
News Board	42.50	@	45.00
Chip Board	40.00	@	45.00
Wood Pulp Board.	2.75	@	3.00
(Carload Lots)			
Binder Boards—			
Per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.60	@	1.65
Domestic	1.75	@	—
Manila Rope	6.00	@	6.37½
Sisal Rope	1.25	@	—
Mixed Rope	1.30	@	—
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.30	@	—
No. 1, New Lt. Burlap	2.00	@	—
New Burlap Cuttings	2.00	@	2.25

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.00	@	4.10
No. 2, Hard White	3.25	@	3.50
No. 1 Soft White	3.00	@	3.10
No. 2 Soft White	1.75	@	2.00
No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock.	2.00	@	2.25
Writing Paper	2.00	@	—
No. 1 Books, heavy	1.80	@	1.90
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila..	1.75	@	2.00
Container Manila...	1.20	@	1.25
Old Kraft	2.25	@	2.50
Overissue News....	1.25	@	1.35
Old Newspaper.....	.75	@	.80
No. 1 Mixed Paper.	.70	@	.75
Common Paper.....	.50	@	.60
Straw Board, Chip.	.75	@	.80
Binders Bd., Chip..	.75	@	.80

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12½	@	.13½
New White, No. 2	.07	@	—
Silesias, No. 1...	.08¼	@	.08½
New Unbleached.	.11	@	.11½
Washable	.05½	@	.05¾
Fancy	.07	@	.07¼
Cottons—according to grades—			
Blue Overall	.09	@	.09¼
New Blue	.03¾	@	.04
New Black Soft.	.06	@	.06¼
New Light Seconds	.03½	@	.03¾
Khaki Cuttings..	.05½	@	.06
Corduroy	.04	@	.04½
New Canvas	.10½	@	.11
New Black Mixed	.05¼	@	.05½

Old

White, No. 1—			
Repacked	7.50	@	8.00
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05½	@	.06
Miscellaneous	.04¾	@	.05¼
Thirds and Blues—			
Repacked	3.75	@	—
Miscellaneous	3.00	@	—
Black Stockings..	4.00	@	4.50
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.65	@	1.75
No. 3	1.15	@	1.20
No. 4	1.25	@	1.35
No. 5A	1.40	@	—
B	1.25		nominal
C	1.15		nominal

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark tinted	.13½	@	.15
Ledgers (sulphite).	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)..	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$27.00	@	28.00
Sulphite easy bleaching	55.00	@	60.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached.	75.00	@	80.00
Sulphate	60.00	@	62.50

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut..	3.60	@	—
Soft White Book shavings	2.80	@	—
White Blk. News.	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers....	1.50	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas..	1.10	@	—
Kraft	2.05	@	—
News and Scrap—			
Strictly Overissue.	.80	@	—
Folded News	.80	@	—
No. 1 Mixed Papers	—	@	.40

Domestic Rags—

Price to mills, f. o. b. Toronto

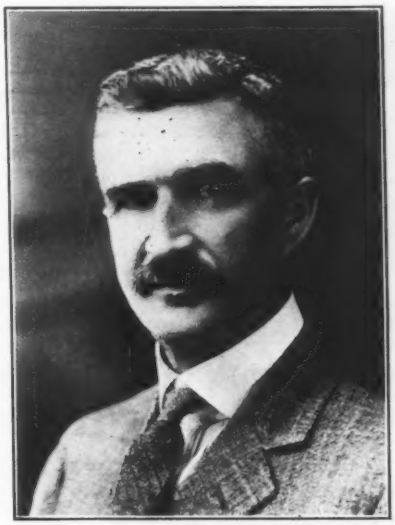
	Per lb.		
No. 1 White shirt cuttings	.13½	@	.13¾
No. 2 White shirt cuttings	.06½	@	.07
Fancy shirt cuttings	.06¾	@	.07
No. 1 Old Whites.	—	@	—
Third and blues....	.05	@	.05¼
	Per cwt.		
Black stockings..	.04	@	—
Roofing stock:			
No. 1	2.20	@	—
No. 2	2.10	@	—
Manila rope	.06	@	.06¼
No. 2	1.55	@	—

Paper City Mfg. Co. Expands

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., July 21, 1924.—The Paper City Manufacturing Company began operations in its new fancy paper department July 15, manufacturing a new and distinctive line of embossed and printed papers for the use of box makers and cover papers for the trade.

"Chardell Papers" is the name of this new line which is the



CHARLES T. INGHAM

latest addition to the company's well known "Pacmacco Lines." Plans are now being worked out to add other specialties to the "Pacmacco Lines" from time to time and the company expects eventually to be one of the largest manufacturers of paper specialties in the country.

Charles T. Ingham, after rounding out more than twenty years of constant service with the Hampden Glazed Paper and Card Company, having had supervision over their embossing and printing department, comes to the Paper City Manufacturing Company, as vice-president and director with direct personal supervision over this new department.

The company will be pleased to submit samples and prices to the trade upon request.

A. G. Kellogg Receiver for Merchants Litho. Co.

[FROM OUR REGULAR CORRESPONDENT.]

SAN FRANCISCO, Cal., July 17, 1924.—The Merchants Lithograph Company of San Francisco has filed a voluntary petition in bankruptcy and A. G. Kellogg, treasurer of the General Paper Company of San Francisco, has been appointed receiver.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, JULY 23, 1924.

If there was anything about the paper market the past week to promote good cheer it was the thought that there is but one more week to go before July is finished. There seems little to hope for until August opens. July is a month that the paper trade always approaches with more or less dread. There is no other month in the year when it is so easy for business to become stagnant and to remain dormant. This year especially July has proved a wearisome period. The market has been surfeited with vexatious problems and the added tediousness of July with its hot, sultry weather, its indifference to business and its general stagnancy has been almost the proverbial straw which breaks the camel's back. It has been a game of waiting the entire month and the market views the approach of August with the feeling that that month may bring possibilities and with the hope that it will do a little something toward lifting the market up out of the rut. And yet the indication is that July will close with the paper business somewhat better than it was when the month opened. That the market has held its own and, perhaps, gained a little is in itself food for thought and a basis for encouragement. The ground gained has been slight but it has been made against real odds and that makes the victory all the greater. Prices generally are holding firm with a tendency to an early advance. There is a better interest in almost every line even though actual orders may be holding back.

Paper men seem to be agreed that August will mark a slow but steady increase in demand and that the opening of September will find the market in a healthy state. How big a Fall business will be done is merely speculative but there are some who believe that it will be above normal and that it will throw the market into an active condition which will enable it to finish out the year with some really big business figures.

There have been but few changes in prices during the past week. In some cases it has been a price advance and in others a cut but there is nothing significant about them either one way or the other.

The news print demand which has had a slight attack of the hot-weather sulks, picked up a little this week. The demand is sufficient to keep the stock moving satisfactorily so that the stock is not accumulating enough to cause any worry.

There is greater activity in book papers than there has been in some time. Buyers are loosening up a little after their hand to mouth buying and are giving evidence of a disposition to prepare a little for the future—something which they have not even considered doing for a long time.

Writing papers are in fair demand and the prices hold strong. It is predicted that a great improvement in this line will be felt soon and that prices will soar at an early date.

Tissues, which have had a hard time of it for some weeks, are picking up slightly. The market is receiving many inquiries regarding them and it is expected that a much more wholesome condition will prevail here before long.

The board buying is broadening out somewhat. A month ago it was of the closest hand to mouth buying but today some orders looking to the future are being placed.

Mechanical Pulp

Chemical pulp is a bit more active than it has been. Prices are holding firm and some good business is finding its way to the market.

Chemical Pulp

The chemical pulp men say the past week was an unusually good week for them—one of the best they have had in some time. There is a very good demand and good imported pulp is especially being looked for.

Rags

The better demand which has recently developed in rags of all grades has continued until today the rag market exhibits a vastly better tone than it has shown for some time. The lower grades of rags had been lagging behind the better grades but here the most perceptible improvement has been seen. Prices have not materially changed although they appear to be trembling on the point of an advance. Roofing rags have been favored by a vastly improved demand and the prices on some of the grades, which went up a week ago, are expected to participate in a still further rise. Everything considered the outlook for the rag market is brighter than it has been for many weeks.

Old Rope and Bagging

Old rope and bagging are not showing the increased activity which has been expected and which has freely been predicted. There has been a slight gain in demand, but the market is exceedingly slow and the dealers are less optimistic about rapidly improving conditions than they were a week ago.

Waste Paper

Waste papers continue to show a little better demand. The higher grades hold firm and the lower grades are easier but business in this line is still slow. There have been no changes in prices during the past week.

Twine

Twine still refuses to reflect any active buying. At this writing it is reported in the market that a new schedule of prices is about to go into effect and that the quotations may change before the end of the week. This is not due, however, to any better business but to the fact that the prices have been generally very low and that the dealers have been making no money at the prices at which they have been selling. An increased demand is bound to come soon and apparently it is the disposition of the market to ask a fair price on all sales made when activity is once more restored to the market.

Whitaker Paper Company Hold Picnic

The employees of the Whitaker Paper Company held their second annual picnic at Elk Grove on Saturday, July 12. All of the Whitaker Paper Company employees and their families were invited. Although the early part of the day looked as though it was going to be anything but pleasant, around noon it turned out to be an ideal day for an outing.

Dinner was served about 12 o'clock and was followed by races for both the young and the old. The event of the day was a baseball game between the salesmen and the men on the inside, and resulted in a score of 7-6 in favor of the salesmen.

A four-piece peppy orchestra furnished music all afternoon, and after supper at 6:30, everyone pronounced it an enjoyable day.

Glens Falls Mills Curtail

GLENS FALLS, N. Y., July 21, 1924.—The International Paper Company mills at South Glens Falls shut down supposedly for one week following July 4 has not yet reopened and company is giving no intimation as to when plants will again go into operation. The plant is one of the larger International Paper units having a capacity of 142 tons of paper daily and 60 tons of ground wood pulp.

The Union Bag and Paper Corporation, Hudson Falls, Fort Edward Mills have been on a four-day a week schedule.

Goes With Combustion Engineering Corp.

MONTREAL, Que., July 21, 1924.—John G. Hall, who has been assistant superintendent of the Back River Paper Company, Montreal, for the past three years, has been appointed to take charge of the Winnipeg office of the Combustion Engineering Corporation, Limited. Mr. Hall assumes his new duties July 15.

Fire and Bookkeeper's Ink

How much insurance could you collect tomorrow?

Every fire insurance policy states that loss will be settled on the basis of "actual cash value" at the time of the fire.

Not one business in three has anything more than bookkeeper's ink to determine and prove such a value.

Bookkeeper's ink isn't adequate.

The books of account record only investment—actual costs—in physical property.

If some of the property was bought years ago, its book value will obviously be lower than "actual cash value."

In addition, the books generally do not show insurable assets which have been charged to expense.

Quite as important is the inaccuracy of most sets of books with regard to depreciation.

Yet actual cash value at the time of the fire means current cost of reproduction less depreciation.

Every business using continuous American Appraisal service not only knows the actual cash value of its property but can provide acceptable proof for it.

With continuous American Appraisal service, this proof is always available—even if the owner's records of the property are completely destroyed.

For a detailed explanation of the necessity for provable current values in connection with fire insurance of the inadequacy of "book values," of the danger of estimated values, and of the advantage of continuous American Appraisal service, send for our monograph Q-7, "When Insurance Insures and When It Doesn't."

THE AMERICAN APPRAISAL COMPANY · MILWAUKEE

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, July 23, 1924.

Another week has gone by and the chemical market remains in the same rut it has occupied for so long. It shows today no more disposition to get out of that rut than it has displayed for weeks and, unless it comes to life without warning, it will probably remain in its present condition for some time to come. The chemical men declare, however, that there are favorable indications although these have brought them no good up to this time. More mills are operating either on full time or on part time. Such mills as are operating are taking out their contracts according to schedule while those which are idle are not taking out their contracts for the various commodities they use but are asking that the dealers and manufacturers store them for them until a more favorable time. There is very little buying and it becomes still more confined to actual necessity. No one is buying anything that he can avoid buying. How long this can go on is a matter for speculation, but with business none too good anywhere it is believed that hand to mouth buying will be the order of the day for a considerable period yet. Nothing but a general resumption of business will bring to the chemical market the free and liberal buying which is necessary to bring the market up out of the rut. Prices hold firm but there is little satisfaction in that. When there is little or no buying and no one takes any interest in buying at any price, the quotation on a commodity is merely a matter of form. The present prices are very favorable. They are as low as the manufacturers can, within reason, concede. When the limited amount of buying is taken into consideration it can readily be seen that higher prices would bring disaster and curtail business which is already cut to a minimum. It can safely be forecast, however, that when the market does really start to move the prices will go higher instead of lower. That can be set down as a moral certainty and, when it actually comes, it may take the buyers by surprise and without a sufficient warning to give them an opportunity to buy before the rise.

BLANC FIXE.—There has been but little demand for blanc fixe during the week. There is a very limited supply on the market but this limited supply is more than adequate for the call. The price keeps up and there is little likelihood of it going any lower. The price is from $75 to $80 a ton for the powder and from $50 to $55 for the pulp.

BLEACHING POWDER.—Bleaching powder is very slow. The manufacturers have been favored by an exceptionally cool season and that accounts for the fact that there is no distress stock to speak of in the market. There is a tendency to curtail production so that the supply will not run far ahead of the actual demand. The quotation is the same as last week—from 1.90 to 2.15 cents a pound.

CAUSTIC SODA.—Caustic soda, which has fared somewhat better than most of the commodities, is now apparently in for its period of dullness. There has been a steadily slowing down of demand and little interest in it is evidenced from any quarter. The falling off in demand has not caused the price to slump, however, and it still holds at from 3.10 to 3.15 cents a pound on a flat basis at the works.

CASEIN.—These are dubious days for casein, which is endeavoring to retain some semblance of life. The demand is very light and the only encouraging fact is that the distress lots which have been on the market have been cleared up, which leaves casein to face the future without any handicap at any rate. The price is still from 10½ to 11 cents a pound.

CHINA CLAY.—China clay may literally be spoken of as on the toboggan. After answering a very liberal demand, when most of the other commodities were on the shelf, china clay recently began to slip and it keeps going with no more ability to stop than a snowball going down hill. The demand was slower than ever this week but the price keeps up. It is from $16 to $20 a ton for the imported grades and from $12 to $15 a ton for the domestic grades.

CHLORINE.—While chlorine has had but a meager call for some weeks it does not get in any worse condition and, perhaps, enjoys a slightly better call if anything. It is still quoted at from 4.50 to 7.00 cents a pound in tanks.

ROSIN.—Very little interest is shown in rosin. Orders are few and far between and the outlook is far from encouraging. The price is holding firm at from $5.75 to $5.80 for 280 pounds.

SALT CAKE.—Salt cake is exceedingly dull but the distress tonnage has disappeared from the market. That condition may last some time but, when general business conditions become right, salt cake is one of the commodities which may be expected to jump in price considerably. With the full resumption of business on the part of the mills that may be looked for. The price at present is from $17 to $20 a ton.

SODA ASH.—Soda ash is just now about as slow as any commodity. The demand has suffered a pronounced falling off within the past two weeks. Manufacturers, however, are not showing any disposition to depart from their schedule and the price holds at 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—With little demand and with no inquiries regarding it, sulphate of alumina occupies an unenviable position in the market. There is apparently no interest in it. The price remains from 1.30 to 1.35 cents for the commercial grade at the Eastern works and from 2.15 to 2.35 cents a pound for iron free.

SULPHUR.—Sulphur had another bad week. The demand continues to fall off, such orders as are being received being hand to mouth purchases. It is quoted at from $18 to $19 a ton.

TALC.—Talc tells the same story this week that it has told for a month or more. The demand is, perhaps, fair but is not what it should be. The price is from $16 to $17 a ton.

Improving Holyoke Water Power

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., July 22, 1924.—Dredging of a channel on the west side of the Connecticut River will begin this week for the Holyoke Water Power Company which seeks to get more of a tailrace for its condensing water and also a large canal from which to draw it. A lane will be made above the power plant to divert the water to the plant for the use of the condensers. The necessary permits from the State and Federal authorities have been secured. The channel to be dredged out is the original boat channel used 100 years or so ago for transportation of goods up the river from tidewater.

Duke, Price Power Co. Incorporates

QUEBEC, July 21, 1924.—Through the incorporation of the Duke, Price Power Company, Ltd., with a capital of $1,500,000, definite form today was given to the joining of the J. B. Duke interests of New York and the Price interests in Canada, which have been working together in the Chicoutimi and Lake St. John districts. The purpose of the incorporation is to develop, and dispose of electric current within that part of the province of Quebec.

It is understood that the principal source of the power will be at the $25,000,000 power development in progress at the Grande Decharge, where the work is being conducted through the Quebec Development Company.

Champion Fibre Co. to Build

The second contract in the program of expansion of the Champion Fibre Company, Canton, N. C., has been awarded and covers the construction of a new finishing plant. The structure will be approximately 130 x 200 feet, two stories and basement and is estimated to cost more than $500,000. The contract is with the Alberthaw Company of Boston, which company is now building the new machine room.